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THE UNIVERSITY OF ALBERTA

A STUDY OF LISTENING COMPREHENSION PROBLEMS FOR CHINESE STUDENTS WHEN LISTENING TO A VARIETY OF ACCENTS

by

LI WEI

A THESIS

SUBMITTED TO THE GRADUATE STUDENTS AND RESEARCH
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE
OF MASTER OF EDUCATION

DEPARTMENT OF ELEMENTARY EDUCATION

EDMONTON, ALBERTA

SPRING, 1989

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THE UNIVERSITY OF ALBERTA

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled " A Study of Listening Comprehension Problems for Chinese Students When Listening to A Variety of Accents " submitted by Li Wei in partial fulfillment of the requirements for the degree of Master of Education.

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(Supervisor)

M. Patricia Brown
.....

Fairfield Hansford
.....

Date: October 12, 1988
.....

DEDICATION

To Dr. CR Chamberlin.

To my wife, Liu Xiao-xin and my daughter, Li Xi-yi.

ABSTRACT

The purpose of this study is to examine the effect of different accents on listening comprehension for the Chinese students. The analysis of the data intends to see how Chinese students perform when listening to different accents, what problems Chinese students have and how these problems affect their academic studies.

In the literature review, the previous studies have shown that familiarity with the accent is very important variable in listening comprehension. Some other studies have reported that it is the easiest for listeners to understand speakers of their own dialect. But there are some other studies which have found that native-speakers are more clearly comprehended than local speakers.

The subjects who are involved in this study are 30 Chinese graduate students who came to Canada in the fall of 1987 and who are studying in Science and Technical Faculties in the University of Alberta. Fourteen Canadian students were also selected as a control group. All these subjects were randomly divided into three groups. The measurements used in this study are: 1. a standard listening comprehension test; 2. a dictation test; 3. an interview. A questionnaire was also used to obtain more information about the Chinese students' education experience and their EFL learning experience in China.

The Chinese subjects took the tests and the interview on the an individual basis. Three different English accents were chosen for this study. They are: a Chinese accent, a Canadian accent and a Scottish accent. The listening materials consisted of three short passages taken from a sociology text Sociology: Understanding Society.

The major findings are:

1. the Chinese students understand the Canadian accent better than the Chinese accent, but it was found that the Scottish was the most difficult for them. This result is different from the most of the studies in this area in the literature review;

2. The Chinese students do find that there are some problems caused by the different accents which influence their listening comprehension while attending lectures. These problems are caused by many variables, such as unfamiliarity with pronunciation, intonation, word stress, sentence stress. Other problems were unexpected placement of pauses, unexpected word repetition, too fast or too slow speech delivery speed and low sound levels.

3. Canadian students have a much higher ability in comprehending different accents and in identifying different accents than the Chinese students. It has been found that the main reasons for this are the amount of the language exposure to a variety of English and English language fluency. The Chinese students have had much less exposure to different accents of English than the Canadian students.

4. This study has also found that although the Chinese students do have problems in listening to lectures given by professors with different accents, these problems are not so serious that they find it difficult to continue their studies because they can use other ways to compensate for what is lost in listening to lectures. For example, they may have a strong background knowledge which can help them to understand lectures better. They can spend more time to read reference books to pick up what they missed in lectures. They can borrow notes from other students and discuss the lectures with them. They can ask professors or lecturers about points which they missed in lectures. They can prepare class in advance, which is also very helpful in reducing some of the problem.

Finally, some implications of this study are presented: 1. implications for EFL teaching in China; 2. implications for universities of English-speaking countries; 3. implications for the TOEFL test. Suggestions for further research are also presented.

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CHAPTER ONE: INTRODUCTION

Statement of the Problem

In recent years, the People's Republic of China (PR China) has opened her doors to western countries. The relationship between China and western countries has developed rapidly in areas such as business, trading, academic exchange in science and technology, travel, educational exchange and exchange of research. In order to have a good performance in these activities, China has been sending more and more students and visiting scholars to the United States and Canada to pursue graduate studies and other academic activities. In addition, the Chinese government encourages Chinese students to find their own way to get financial support in order to be able to study abroad. In the United States in 1987, it was reported that the number of students from PR China stood at 20,030 which was the third largest group of foreign students in the United States. In Canada as well, the number of Chinese students has grown greatly during recent years. In the University of Alberta alone, there are more than 300 students from PR China who were studying in different departments during the fall academic term of 1987.

Before they can come to study in North America, Chinese students must undergo formal evaluation of their command of English. Most of them have passed a test in English as a foreign language such as the Test of English as a Foreign Language (TOEFL), the Michigan Test of English Language Proficiency (MTELP), the English Proficiency Test (EPT), and others, some of which are given by the Chinese government before the students are allowed to leave to study abroad. Some students have also passed the Graduate Records Examination (GRE). Although these students may have received satisfactory scores on these tests, tests which are an important requirement for admission to study in universities in English-speaking countries, in actual fact their proficiency in English varies from person

to person, as was shown by Mu (1987). For example, in the University of Alberta, while most of the Chinese students have done very well in their academic work, there are still some who have failed in their studies.

There are many reasons for the problems which Chinese students encounter while studying in a foreign language. Since students spend much time listening, one of the most important problems may be their weakness in listening comprehension. When the students were in China there were very limited opportunities to listen to a variety of native speakers' speech because of the language environment. Some students might never have had the opportunity to listen to or to talk with native speakers at all and they have learned English just from Chinese teachers. Thus the students' ability to deal with different accents is underdeveloped. Now that they have come to study in English speaking countries, they have to face this issue, since they are exposed to professors who, while they all speak English, come from a variety of language backgrounds. One Chinese student reported that his level of listening comprehension was very different depending on the speaker. Some people's speech was easy to understand, but the speech of others, especially the young people, was difficult because of pronunciation. The student claimed that he was sometimes totally lost in class because of his difficulty in coping with different accents.

Therefore it is felt that listening comprehension is an important issue which influences the success or failure of Chinese students' studies in English-speaking countries as well as for all students for whom English is a second language or a foreign language.

The Problem of Accent

So far little is known about what problems Chinese students or nonnative speakers have when they are exposed to different accents, since very few studies have been done on the effect of different accents on the comprehension of second language learners. Most of these studies were done in the 1970s and few have been done recently (Brown, 1968;

Wilcox, 1978; Eisentein, 1981; Ekong, 1982; Smith & Bisazza, 1982; Ortmeyer & Boyle, 1985). None of these studies offer a clear explanation as to why the results came out in the way they did. Ortmeyer (1985) points out that these results needed to be tested by more experiments, in different places, with different accents and different subjects.

The Purpose of this Study

Since a review of the literature reveals that very little research has been done on the influence of different accents on nonnative speakers' listening comprehension, this study will examine the problems that Chinese students have in listening comprehension which are caused by differences in accent and the influence of these problems on their academic achievement.

The study will attempt to:

1. describe characteristics of the accents of different professors in terms of pronunciation, word stress, sentence stress, intonation, and the quality of vowels;

2. describe how Chinese students react to different accents from the point of view of listening comprehension and why;

3. compare Chinese students with Canadian students in terms of what problems they share and what problems they do not share;

4. describe how these problems influence their academic achievement;

5. describe the differences in listening comprehension ability among the Chinese students in terms of their pronunciation and how many Chinese dialects they speak.

The Significance of this Study

Although quite a few studies (Freed, 1978; Early, 1987; Brulhart, 1986, Chaudron, 1983, Gass, 1985, Henzl, 1973; Schine-Llano, 1983; Steyaet, 1977; Wesche & Ready, 1985) have been done with regard to Foreigner Talk which have indicated that when native

speakers talk to nonnative speakers they adjust their performance and speaking behavior, and that in some ways their talk is very similar to parents talking to their children, very little is known about the effect of different accents on nonnative speakers. Some researchers have investigated this field, but the results are far from complete.

Since more and more Chinese students have been going abroad to study, listening comprehension has become a very important issue which needs to be studied because it plays a very important role both in their academic studies and in their language learning. In his study " Academic Demands Related to Listening Skills", Powers (1986) found that some listening skills were more important than others (referring to reading, writing, and speaking) for academic success. There are five activities which nonnative speakers found difficult. One of the difficult listening activities is following lectures given with different speeds and accents or dialects.

The results of the present study might help us to have a better understanding of what problems Chinese students, and probably other ESL or EFL students as well, have when they listen to different accents. This may have some implication for the development of the second language or foreign language curriculum in the countries which prepare students for study in English-speaking countries and help students to overcome these problems. This might also help the universities in Canada as well as in some other countries to understand the problems foreign students have as well as helping these institutions to assist students in solving these problems.

Research Questions for This Study

The following questions will be addressed in this study.

1. What are the characteristics of the different accents which are used in this study?

2. Do Chinese students have problems when they listen to the different accents and what causes these problems?

3. Do the Chinese students have the same ability to identify different accents as the Canadian students?

4. What is the influence of these problems on their academic achievement when they study in the English speaking university?

5. Which accent do Chinese students comprehend better?

6. Do Canadian students perform as well as Chinese students when listening to different accents?

7. Do the Chinese students who have good English pronunciation have better comprehension of different accents?

8. Do the Chinese students who speak more than one foreign language have greater ability to deal with the different accents than the students whose only foreign language is English?

Limitations and Delimitations of this Study

The subjects in this study are Chinese students, all of whom came to Canada in the same academic year. Actually, it has been found that there are still several subjects who came to English-speaking countries earlier although they came to the University of Alberta at the same time as the other subjects. Although they came at the same time, their English proficiency may not be the same from person to person because their previous English education experience is not the same.

Because this study needed about 30 Chinese students, it was impossible to get all the subjects from the same area of study. Since the subjects were selected from several different departments, their background knowledge and personal experience is slightly different.

In this study, taperecorders will be used to record the different accents from three professors and the interview with the Chinese students. This may cause tension in some subjects.

According to the theory of language learning and teaching, not only accent will affect listening comprehension, but there are many other factors, such as the background knowledge in the area, the degree of familiarity with the content of listening materials, the knowledge of the target language culture, the personalities of listeners, the motivation and the emotion of the listener and so on. This study will focus only on accent because it is impossible to look at all of the other factors involved in one study. However, accent is one of the crucial factors which affects the degree of understanding lectures for Chinese students.

The speech samples used in this study will take the form of reading on tapes. Although the three readers are asked to read as close to the way they would lecture in class as possible, the readings may be still different from natural speech. On the other hand, the visual component of the lecture, a component which also aids comprehension, will not be available to the subjects.

Definition of Terms

For the purpose of this study, the following definitions will be used:

Accent -- Accent in this study refers to different speakers' pronunciation which includes word stress, sentence stress, intonation, and pauses. The accents used for this study are Canadian accent, Scottish accent and Chinese accent which is from the speaker for whom English is a second language.

Chinese students -- Chinese students are ones who came from the People's Republic of China to pursue their graduate studies in western countries or who come to Canada to study as visiting scholars.

Native-born English speaking Canadian students -- Native-born English speaking Canadian students are students who were born in Canada and whose first language is English.

Native speakers -- Native speakers refers to speakers whose first language is English.

Nonnative speakers -- Nonnative speakers refer to speakers for whom English is not their first language, but their second or foreign language.

T-unit -- a construct which can be described as one main clause plus whatever clauses, phrases and words happen to be attached to or embedded within it (Street, 1971). This term was first described by Hunt (1965).

Conclusion

This chapter presents a statement of the problem and the purpose and significance of this study. General research questions are also raised in this chapter. Chapter Two will review the related literature. The research design will be described in Chapter Three. In Chapters Four and Five will appear the results, discussion and implications and recommendations for further study.

CHAPTER TWO

THE REVIEW OF RELATED LITERATURE

Introduction

The review of the literature reveals that so far very little research has been done on the topic of nonnative speakers' ability to comprehend the different accents both of native speakers and of speakers for whom English is their second or foreign language. But researchers have done quite a lot of studies in related fields, such as, foreigner talk, the comprehension of native speakers listening to nonnative speakers, and the effect of listening comprehension on the success of foreign learners in their academic studies in English speaking countries. This chapter presents this related research as well as studies dealing with the listening difficulties experienced by foreign learners.

Research on Listening Comprehension Involving Different Accents

Most of the research studies on the effect of accent differences on listening comprehension (Brown, 1968; Wilcox, 1978; Ekong,1982; Smith and Bisazza, 1982) support the position that the accent which was the best understood was the accent of the speakers from the same area as the listeners or the accent of fellow countrymen (Smith and Bisazza, 1982), rather than the accent of a standard native speaker. There was, however, one study conducted by Orthmeyer and Boyle (1985) in Hong Kong which found the opposite.

Brown (1968) tested how well Twi and Ewe native speakers comprehended English when spoken by a) native speakers of Received Pronunciation British English (R.P. British), b) Twi native speakers, c) Ewe native speakers. What he found was that the Twi native speakers understood English best when the speakers were also Twi native

speakers. Similarly, the Ewe native speakers comprehended best when the speakers were Ewe native speakers.

Wilcox in 1978 did a study on second-year university students' ability to comprehend various accents of English used in Singapore. Four accents of English were used: American English (US), R.P. British English (EN), Australian English (AU) and educated Singapornean-Malaysian English (SP). Three hundred and twenty students, most of whom were Chinese educated students, were involved in his study. The research used two tests: a multiple-choice listening comprehension test and a close test. The results showed that the students, generally, comprehended oral English best when it was spoken with a Singaporean-Malaysian accent. The students had the most difficulty in understanding the US accent, slightly less in understanding the AU accent and the least in comprehending the EN accent. The study also found that, generally speaking, the results from cloze tests were higher than multiple-choice tests, by about 8-30 points.

Smith and Bisazza (1982) point out that one's language comprehensibility should be judged by native speakers as well as nonnative speakers. They stated that:

> *"A speaker's comprehensibility in a language is usually based solely upon the native speakers of that language.We are convinced that this criterion is no longer appropriate for speakers of English as an international language(Smith,1976; 1981; Quirk, 1978; Strevens, 1978; Kachru and Quirk,1981).. A more useful evaluation of one's English language comprehensibility should be based on the judgement of both native and nonnative speakers".* (p.259)

They conducted a complex international study which tested the comprehensibility of one native (American) and two nonnative (Indian and Japanese) varieties of English for native and nonnative users of English in seven locations (Hong Kong, Indian, Philippines, Japan, Taiwan, Thailand and the United States). The subjects in these locations were divided into three groups: ESL (English as a second language) group, EFL (English as a

foreign language) group and native group. Their results were not as clear as in the previous studies. In most countries, they found the American speaker easiest to understand, the Indian most difficult and the Japanese in between. The most interesting findings were found in the two countries (India and Japan) where both a native-speaker and a local speaker were used. There, the results were dissimilar. In Japan, the Japanese speaker was the best understood of the three speakers. The American was the second and the third was the Indian speaker. But in India, the American was the best comprehended, with the Indian second and the Japanese third.

From the results of the above studies, it may be assumed that people understood best when English was spoken by the local or fellow-countrymen in most of the cases. Why? The following reasons, derived from the work of these researchers, may offer some help.

1. More Exposure to the Language

Usually, when second language learners or foreign language learners were studying English, they were probably taught by teachers for whom English was also their second and foreign language. In most situations, then, the language to which the students were exposed was the language spoken by nonnative speakers, their classmates and teachers who were of the same nationality. They might have, sometimes, the chance to be exposed to a native speaker. Smith and Bisazza (1982) found in their study that the greater the exposure to native speakers' English both in and out of the classroom, the better the comprehension of English. In their study, American subjects did the best at comprehending the three accents because the American students had had the greatest amount of active exposure to the three varieties of accents.

2. Familiarity with the Accent

Familiarity with the accent is also a very important variable which affects listening comprehension. Gass and Varonis (1984) in their study found that while the most important of the variables affecting comprehension was familiarity with the topic, other variables as well had a facilitating effect on listening comprehension, variables such as familiarity with the subject of the speech in general and familiarity with a particular accent. In the report of his study, Brown(1968) stressed:

> *"Like Strevens (1954), we found that our students claimed to have no difficulty in understanding each other, and as far as ' misunderstandings --- etc.' deriving from difficulty with he phonology of English were concerned this seemed to be substantially true. Indeed they claimed that they often had more difficulty in understanding expatriate English-speaking staff, particularly new arrivals until they had grown used to heir pronunciation".* (p. 181)

The most interesting thing is that in one case, the result is the opposite. In the study of Smith and Bisazza (1982), who expected the subjects in India to comprehend their fellow-countrymen best of all the accents, this did not happen. Why is this case different from the others? Through the analysis of the personal data, it was found that the Indian speaker was a native Hindu speaker from Uttar Pradesh who considered himself a speaker of Uttar Pradesh (U.P.) English, but the Indian subjects came from all over India. All of them had had more exposure to American English than to U.P. English, so they comprehended the American accent better than the Indian accent, a finding which agrees with the original hypothesis.

3. Rate of Speech

Why in Wilcox's (1978) study did the students have slightly more difficulty with the US accent than they did with the AU accent? Wilcox (1978) points out a partial explanation for this discrepancy. The original hypothesis was that the students on the whole would have the most difficulty in understanding the AU accent, slightly less in understanding the US accent, progressively less in comprehending EN and the least in understanding their own accent. On the other hand, the results showed that the US speaker's normal rate of delivery was much faster than any of the other's normal rates. Wilcox suggests that it is extremely difficult to tell how much this variation in the rate of speaking influenced the final outcome in listening comprehension.

Another recent study (Ortmeyer and Boyle, 1985) which was conducted in Hong Kong with native Chinese speakers arrived at a different conclusion, namely that the accent of native speakers (British and American) was comprehended better than that of local Chinese speakers of English. The results of this study tallied with the case of Indian in the Smith and Bisazza (1982) study. In the former study, 250 subjects were involved who were divided into four equal-proficiency groups and given two tests: a test of listening comprehension and a dictation test. Four accents (American, British and two Chinese-clear and unclear) were used with the subjects. The results showed that native speakers were better understood than the Chinese speakers in tests dealing with clear accent and unclear accent, but there was no significant difference among the subjects in comprehending the clear and unclear Chinese speakers. This fact suggests that the distinction for the clear and unclear Chinese speakers was valid more for a non-Chinese listener than for a Chinese listener. Just as Ortmeyer and Boyle (1985) state in their research report:

> *"[This] situation may be similar to an American's being able to understand almost equally well a standard American accent and a strong southern accent, or an*

Englishman's ability to understand both standard English and Cockney, whereas a non-native speaker might well have great difficulty with the southern or Cockney accent". (p.53)

If this is true, it seems contradicted by the case of the Indians in Smith and Bisazza's study (1982). Orthmeyer and Boyle did not give any explanation as to why the Chinese students comprehended native speakers better than their fellow-country speakers in their study.

Research on Listening Comprehension of Different Dialects

Other studies which are related to the comprehension of accents were conducted by Choy and Dodd (1976), and Speidel and Tharp (1985), who have carried out research about the comprehension of different dialects of English, such as nonstandard English (Hawaiian English) and standard English (American). The reason for doing such research was because recently, there was a multidisciplinary interest in the relationship between the use of nonstandard English and academic performance in schools. Previous studies have found that, generally speaking, nonstandard English speaking children do not perform as well in school and on standardized tests as their standard English speaking counterparts.

In Speidel and Tharp's study (1985), it was found that Hawaiian English (nonstandard English) speakers comprehended significantly better when listening to Hawaiian English materials than when listening to standard English materials. In addition, their performance on the mixed listening condition (standard English complex-syntax and simple-syntax condition with Hawaiian English pronunciation) was significantly lower than when listening to their own Hawaiian English, but not significantly lower than their performance on the standard English. Their findings indicate that the sample of Hawaiian English children used have no problems in understanding the discourse selections, as such; they correctly answered as many questions on the Hawaiian English listening selections as

on the standard English listening selections. The researchers argue that any difficulty Hawaiian English children had was partially due to differences between linguistic features in their dialect and the standard English and was not solely a function of differences in styles of language usage or differences in world knowledge. They point out that comprehension of spoken language is of critical importance for learning and also for classroom participation.

Choy and Dodd (1976) have conducted research on standard English and nonstandard English speakers' comprehension skills. They have found the same results as were mentioned above, namely that nonstandard Hawaiian English speakers perform better with their own dialect than with standard English, and that standard English speakers comprehend better with standard English than with Hawaiian English. They also found that in the evaluation by teachers of standard English (SE) students and nonstandard Hawaiian English (NHE) students, the teachers perceive the SE students as more confident and eager but less ethnic and nonstandard than the NHE students. They also found that NHE speakers were perceived as performing less well than their SE speaking counterparts in many areas, such as language arts, task-oriented behaviors.

Theory of Comprehension of Natural Speech

Quinn (1978) points out that comprehension of natural speech is very important in second language learning. What is natural speech? Quinn (1978, p.82) defines it as the speech which is uttered for any other purpose except language learning practice. He provides two reasons why natural speech is important:

> *... from a practical point of view, I would claim that the ability to comprehend natural speech is probably the most important skill a second language learner has to acquire. On the other hand, from the point of view of one interested in theory, an examination of attitudes towards natural speech is a most enlightening way of highlighting the essential basis of any theory of language acquisition".* (p. 82)

Quinn claims that the reason why the comprehension of natural speech is so important is because effective learning or use of a second language involves a phenomenon called multi-ailected reception competence; that is, effective interaction in a second language involves the ability to understand many varieties of speech that differ markedly at many levels, from the speech of any one individual learner of speaker. One study by Quinn (1978) was conducted using one group of learners with exposure to a rich linguistic environment and another group with exposure to a simple linguistic environment, that is just listening to the radio programs. It was found that the first group was more effective. The research by Dulay and Burt and Krashen (1982) suggests that communicative skills, i.e. effective interaction is natural communication situations, depends crucially on language acquisition, not on language learning.

Franked (1978) in his paper also concludes that the EFL learners' exposure to spoken English in the classroom or in a language laboratory is inadequate in quality. That is because of:

1. the abnormally slow speed;

2. the deliberate omission of the performance variables which characterize native-speech, and;

3. the narrow range of native speaker voices and accents to which the learner is exposed.

Because of this, when ESL or EFL learners listen to native English speakers, they have difficulties. Franked (1978) states that:

> *In recent years a number of studies have been conducted which have attempted to identify these features of the speech of native-speakers of English which contribute to the listening comprehension difficulties of nonnative speakers studying in countries where English is the L1. Although they differ in terms of the hierarchical order in which they place these features, all agree that, among other findings, these*

> *major causes of difficulties are: 1. the speed at which native-speakers speak; 2. unfamiliarity with the performance variables which characterize native-speaker speech, and 3. the confusing varieties of native-speaker accents.* (p. 95)

Summary

The literature review has shown that most previous studies on accent found that speakers who were from the same country or area were more easily understood. The explanation for this might be threefold: 1. familiarity with the accent, 2. more exposure to the language, and 3. slow rate of speech delivery. But there were other studies which found the opposite results that native English was easier to understand than the local English for ESL or EFL listeners.

The research on English dialect also found that listeners comprehended better when speakers speak the same English dialects as the listeners. It was found in these studies that the problems of comprehension are mainly the difference of the linguistic features. These studies also point out that the poor listening comprehension of nonstandard English children affects their academic studies in schools.

Some studies suggested that comprehension of natural speech is very important in second language learning. Exposure to spoken English only in the classroom or language laboratory is inadequate. The major variables which cause EFL or ESL listeners problems are the speed, unfamiliarity with native speech and confusing variety of native-speaker accents.

CHAPTER THREE

RESEARCH DESIGN AND THE PROCEDURES

INTRODUCTION

The primary purpose of this study was to examine: a) how Chinese students performed in coping with the different English accents which professors used; b) what problems Chinese students had when listening to the different accents; c) how the different accents affected the Chinese students' academic studies; d) what the difference was between the Chinese students and Canadian students in comprehending the different accents. In order to explore these questions and other related questions, four different research instruments were used: 1) a listening comprehension test; 2) a dictation test; 3) an interview; and 4) a questionnaire. The sample was composed of Chinese students and Canadian students. Before the main study was carried out, a pilot study was conducted. In this chapter, both the pilot study and the main study will be discussed.

PILOT STUDY

The Purpose of the Pilot Study

Before the data collection for the main study began, a pilot study was conducted. The subjects involved in this pilot study were seven Chinese graduate students and visiting scholars (from PR China) who were studying different subjects and in different departments of the University of Alberta. Two Canadian students were selected for this pilot study who were also graduate students in the University. The purpose of this pilot study was to determine:

a) the reliability and validity of the tests which were used in this study;

b) testing procedure;

c) the suitableness of the three accents used in this study;

d) the difficulty level of the listening materials;

e) comprehensibility of the questionnaire;

f) whether the questionnaire would elicit the information which was needed for the study;

g) how long it would take for the tests to be administered.

The Procedure of the Pilot Study

The subjects were divided into three groups, each of which was asked to take one set of tests consisting of two kinds of listening comprehension tests: a multiple-choice listening comprehension test and a dictation. The multiple-choice test included listening to tapes of three different readings; one reading with Chinese accent, one reading with Canadian accent and another reading with Scottish accent. The dictation test was a short passage which was read by the three readers. The first group with three subjects took the tests at the same time and at the same place, but the subjects in the other two groups took the tests separately, one person at a time. The subjects were not allowed to read the questions and answers until they finished listening to the passage. The paragraph contained in the dictation was dictated one sentence at a time. A short interview was administered at the end of the tests. Finally, every subject was asked to fill out a questionnaire in order to get more information about his/her education and personal background.

Results

The results of this pilot study can be described as follows:

a) Because the multiple-choice answers were printed on the answer sheet reading factors may have been involved, which might have reduced the validity of the test;

b) Each item of the multiple-choice test consisted of four choices, which may have permitted the subjects to guess the right answer without understanding the content;

c) The researcher found it worked better when subjects took the listening comprehension test, individually. In this case, the degree of the subjects' concentration on listening was much higher and it was also easier for the researcher to interview them;

d) The difficulty level for the listening materials was suitable. No one found that the content of the materials was difficult to understand;

e) The three accents chosen for this study seemed appropriate. All subjects felt that these three accents were obviously different. But the speed of the Chinese accent was much slower than the other two accents.

f) Generally speaking, the questionnaire was understandable, but still, there were some items which were not clear enough. It was also found that some items needed to be added in order to get more information;

g) Almost all the Chinese students found the dictation test too difficult, but the two Canadian subjects did not. The reason was that some sentences were so long that it was difficult to remember all of them;

h) The time for the two tests was about 45 minutes. If the interview and filling in the questionnaire were considered, the actual testing sessions probably would take one hour and a half.

Changes Made

From the findings of this pilot study, it was necessary to make some changes to the main study in order to make it more reliable and valid.

a) Some adjustment in the tests was made to reduce the influence of reading factors and the chances of guessing in the multiple-choice listening tests;

b) The dictation test was modified so as to keep all the sentences in the passage shorter and the same length;

c) In the main study, all the subjects would take the tests and be interviewed individually in a place suitable to the subject;

d) Some of the items in the questionnaire were made clearer and some more items were added;

e) The Chinese accent reader was asked to read at the same speed as the others.

f) In order to minimize the influence of the memory factor, subjects were encouraged to take notes when listening and these could be used to help them to do the tests.

MAIN STUDY

The main study was administered after some adjustments were made according to the results from the pilot study.

Listening Materials

The material used for the listening comprehension tests was chosen on the basis that the content of the material would be sufficiently easy that the subjects would not have problems understanding the ideas expressed. The three passages selected for this study, taken from the sociology text Sociology: Understanding Society by Rose, Glazer and Glazer (1978) were:

a) Structure and Functions of the Family;

b) Women in the Labour Force;

c) More Divorces.

The first passage contained 431 words with 30 T-units. The second one included 475 words with 28 T-units, and the last had 487 words with 30 T-units. Although the lengths of these three passages were slightly different, the T-units were almost equal, which indicated that the difficulty levels of these three passages were almost the same in terms of the complexity of the structure of the language.

These three passages were used for the standard listening comprehension test as well as for the dictation test.

Accent

In this study, three English accents were chosen: 1) Chinese accent; 2) Western Canadian accent; and 3) Scottish accent. These three accents were those of three female professors at the University of Alberta. The Chinese professor who originally came from PR China grew up in the south of China and went to Hong Kong to study at the university. At the age of about 21, she came to the United States to pursue her graduate study. After graduation, she came to Canada to teach at the University of Alberta. Her English is fluent but with a strong southern Chinese accent. The Canadian professor was born and grew up in the western part of Canada. After graduate study in the United States, she came to the University of Alberta to teach. The Scottish professor lived in Scotland until she came to the University of Alberta to teach. She keeps her Scottish accent because she says that she likes it.

All three professors chosen were females in order to avoid the sex factors which could influence the listening comprehension test (Ortmeyer, 1985).

The following describes briefly the main characteristics of the three accents based on the speed, intonation, sentence stress, word stress, the placement and duration of the pauses, and the repetition of the words in the sentences.

The Speed of Production in the Three Accents

In the pilot study, it was found that the speed of production of the three readers was quite different. The Canadian and the Scottish readers read quickly but the Chinese reader read more slowly. Based on the results of the pilot study, some adjustments were made. The three readers were asked to try to read the three passages at a speed which was similar to that of their lecturing in class or to their way of talking in their classes. In this way, the

speed of these three readers could be controlled a little to keep them as similar as possible. The speed used in the three passages for each of the three accents is presented in Table 1.

Table 1

The Speed of the Three Passages in the Three Accents

	Chinese Accent	Canadian Accent	Scottish Accent
Passage 1	4.58*	4.10	4.21
Passage 2	4.11	3.45	3.44
Passage 3	4.26	3.57	3.56
Mean	4.32	3.57	4.00

* The time unit used here is a minute.

Table 1 suggests that the passages read in the Canadian accent and the Scottish accent were very close to each other in speed, but the Chinese passages were slower than those of the other two accents in all the passages. From the table, it can be seen that in the first passage, the Chinese accent was about 40 seconds slower than the Canadian and Scottish accents. It was about 25 seconds slower in the second passage. In the third passage it was about 30 seconds slower than the other two accents.

The Intonation of the Three Accents

In this section, the intonation of these three accents is compared in term of the pitch change. The purpose of this comparison is to see what differences there are among the three accents in intonation, because intonation is another important factor which influences listening comprehension.

In languages which are not tone languages, like English, pitch still plays an important role (Fromkin, 1978). Some subjects claimed that the Scottish accent was more difficult to understand than the Canadian accent. One of the reasons was that there were more rapid changes in pitch in the Scottish accent than in the Canadian accent. For example, the change from high pitch to low pitch was so frequent and rapid that it was very difficult to catch the words which were in low pitch.

The analysis of the intonation of the these three accents was carried out by the use of a mingograph with the help of two graduate students in the Department of Linguistics.

The mingograph used here is a 4 channel strip recorder, which is named 'mingograph 34' made by ELEMA-SCHÖNANDER in Sweden. A strip recorder or chart recorder is a mechanical recording device which produces a continuous hard copy of an input signal on a strip of paper. The mingograph is more sophisticated than most mechanical recorders, and has a higher frequency response. The pens are electro-mechanically controlled capillary jets which spray a fine line of ink onto the paper. The input signal to that channel moves the ink jet up and down as the signal rises and falls. The paper moves under the ink jets by a paper transport system (Rozsypal, 1985).

The curve which was used to determine the differences of pitches of the three accents was obtained from the mingograph machine. This curve was called the f_0-curve or pitch trace curve. When there is no voicing, the f_0-curve has zero amplitude. However, sometimes the pitchmeter registers energy from sounds which have strong low frequency components, but which are not voiced. These are usually easy to identify, because the f_0-curve is very irregular. Voicing is indicated by the spikes superimposed on top of the f_0-curve, so that the voiced segments, or vowels, are generally very easy to identify; changes in the f_0-trend, like changes in intensity, often reflect the boundaries between syllables, or sometimes even segments (Rozsypal, 1985).

Figures 1, 2 and 3 show the fo-curve for the the intonation of the three accents, using comparable speech segments. Each is a trace of the same sentences that the three readers read.

From these three figures, it can be seen that there were fewer high pitches in the Chinese accent than in the Canadian and the Scottish accents. In addition to that, the peaks of the pitches of the Chinese accent were at many different levels. There are quite a few which are in the middle levels. In comparing the fo-curve of Canadian accent with that of Scottish accent, the high pitches of the Canadian accent are less than those in the Scottish accent, but they are more than those in Chinese accent. While the Canadian accent still has some middle level pitches, it does not have as many as in the Chinese accent. Looking at figure 3, it can be seen that the pitches of the Scottish accent are the most frequent and highest of all these three accents and occur most frequently. The contrast of high pitches and low pitches is very marked, that is to say, the high pitches are really very high and the low pitches are really very low. There are not as many middle level pitches as in the Chinese accent. All this indicates that the intonation of the Chinese accent is flatter than is the case with the Canadian and the Scottish accents. The intonation of the Canadian accent is in the middle, and the Scottish accent is the most changeable in intonation. The following table shows the number of different pitch levels of these three accents, which gives some ideas of the range involved in each of these three accents.

FIGURE 1

F_0-Curve for the Chinese Accent

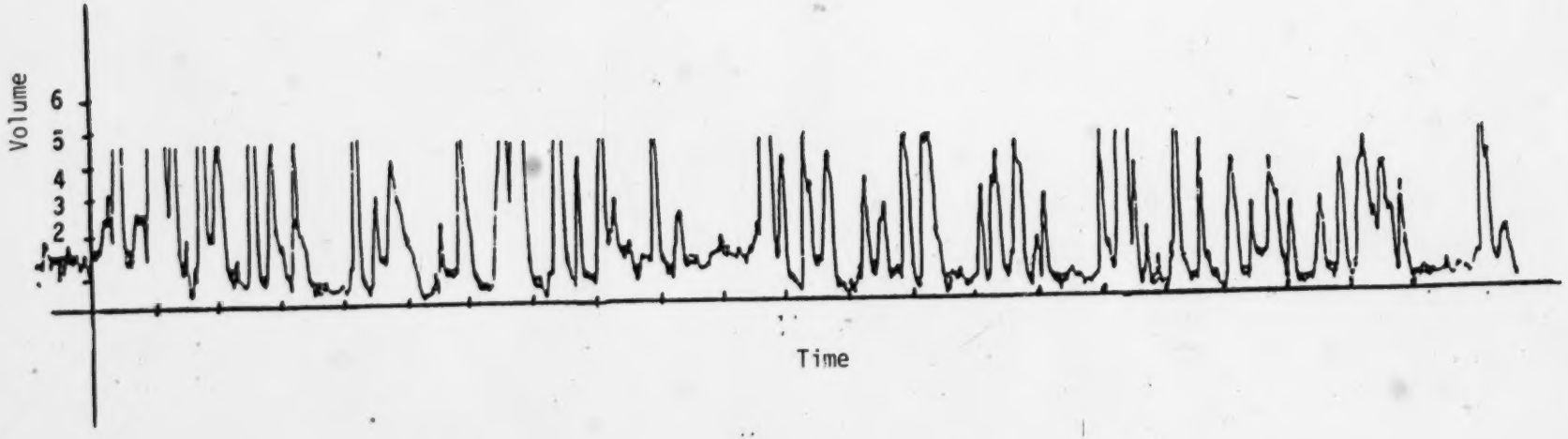


FIGURE 2

F_0-Curve for the Canadian Accent

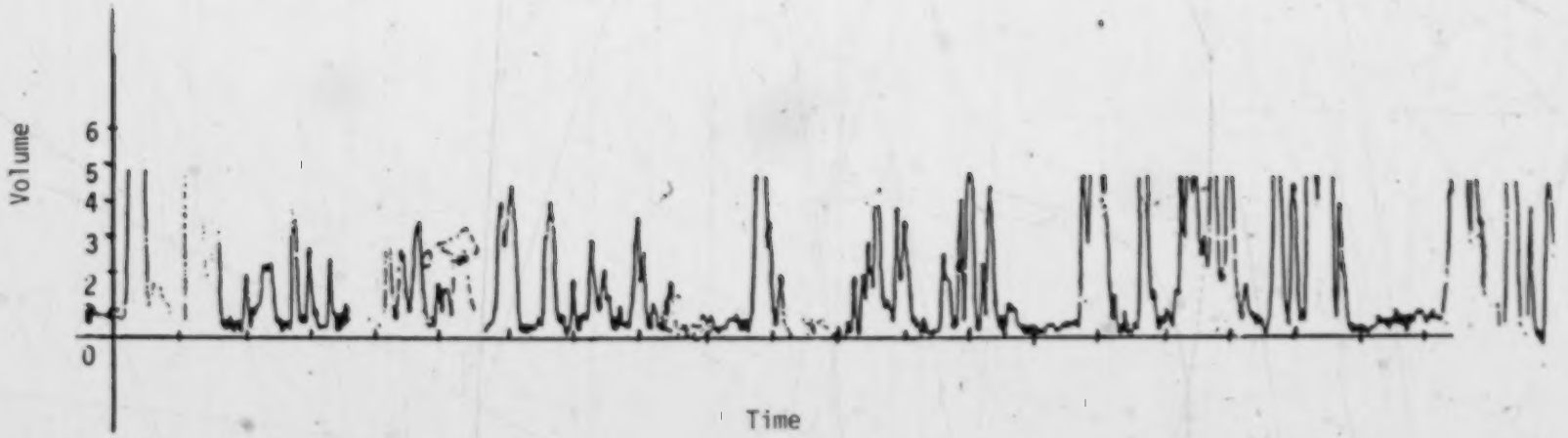


FIGURE 3

F_0-Curve for the Scottish Accent

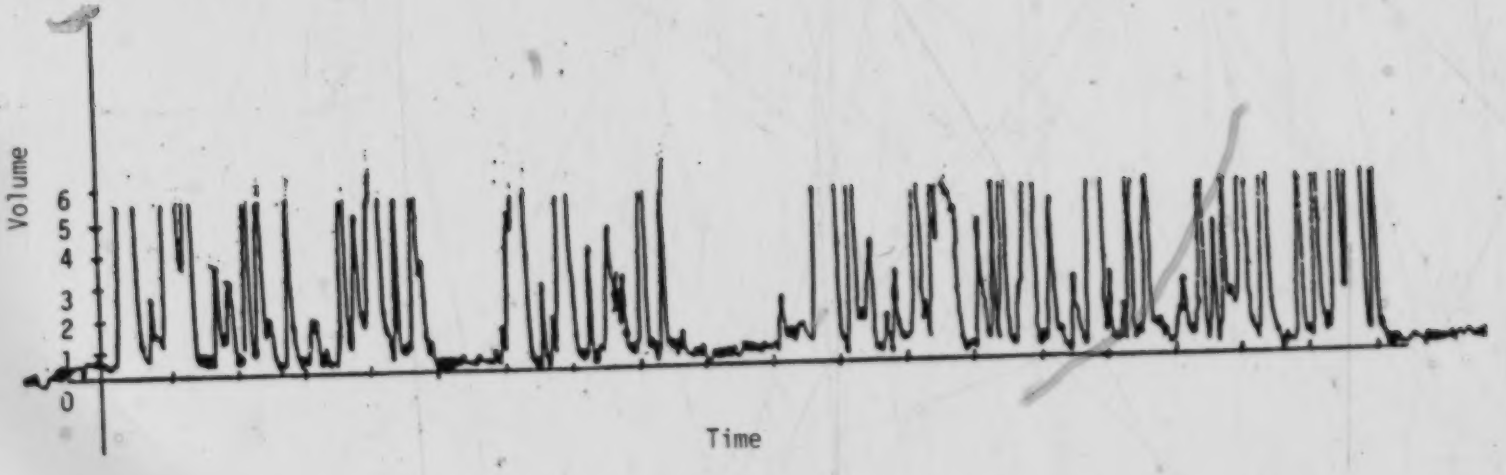


Table 2

The Number of Different Pitch Levels in the Three Accents

Pitch level / Accent	Chinese Accent	Canadian Accent	Scottish Accent
1	9	7	20
1.5	13	16	6
2	8	7	8
2.5	14	6	4
3	8	7	8
3.5	2	3	1
4	17	18	4
4.5	6	3	3
5	43	24	2
5.5	0	0	0
5.8	0	0	64
6	0	0	0

Table 2 reflects the distribution of pitch levels in these three accents. From this table, it can be seen that the intonation of the Chinese accent is flatter than the other two accents although the Chinese accent is more similar with the Canadian accent than the Scottish accent. The distribution shown in the Chinese accent column is basically evenly distributed, with 43 occurrences in the high pitch level, which shows much difference with the Canadian accent and the Scottish accent, and 13 in the low pitch level. But there are two other pitch levels with high distribution, which are in the middle levels, 2.5 and 4 with 14 and 17 respectively. From the second column, that is, the Canadian accent, the frequency of high pitches is 24 and of the low pitches, 16. There is only one frequent one in the middle level, with 18. From the table, then, it is very obvious that Chinese accent is flatter than Canadian accent in intonation. In looking at the table carefully, it can also be found

that the two most frequently occurring pitch levels in the Scottish accent are at the two ends of the degree levels of the f -curve. There are fewer frequently occurring pitch levels in the middle range. This indicates that the changes of intonation in the Scottish accent are more marked. From these frequencies, it can be seen that the intonation of the Chinese accent is the most flat, the Canadian accent is in the middle and Scottish is the least flat.

Word Stress

Fromkin and Rodman (1978) state that the stress pattern of a word might differ from dialect to dialect. For example, in most varieties of American English, the word laboratory has two stressed syllables labo'rato'ry, while in one dialect of British English, it receives only one stress la'boratory. There are many similar examples. The differences in word stress patterns from dialect to dialect might pose problems in listening comprehension for listeners who were not familiar with these differences, while some listeners might be used to the stress pattern of American English others might be used to the stress pattern of British English.

The three accents in the present study have differences in the word stress pattern. This occurs because one was a Scottish speech sample which is a dialect of British English. Another one was Canadian which is closer to American English. The third accent is not a native English accent. Since the reader was from China, her pronunciation was influenced by her first language, Mandarin , which is quite different from English. Mandarin is a tone language, but English is not. On the other hand, Mandarin does not have word stress, while English does. This is really very difficult for Chinese people learning English. Some Chinese subjects claimed that the pronunciation of the Chinese reader was not as good as the native readers, since some words were inaccurately pronounced. One problem with inaccurate pronunciations might be caused by the incorrect placement of word stress. One of the Chinese subjects said in the interview that:

When I came to Canada, I found that sometimes I felt confused and misunderstood what people said. That is because there were some words pronounced differently. For example, the stress of the word, petroleum which was pronounced by the native speakers as petro'leum, but I pronounced it as pe'troleum. --- Another example was the word, university, which was pronounced as uni'versity by native speakers, but I pronounced it as u'niversity. So because the word stress by the native speakers is different from mine, I often got into difficulty in understanding what the people said.

The above statement shows that sometimes stress difference confuses listeners and causes misunderstanding. It should also be noticed that such differences are not common. Brown (1968) points out that if the same text were presented to a number of native speakers who speak the same dialect to read aloud there might be some variation in the placing of stress, but he also claimed that there would be agreement in over 90 percent of cases.

In comparing the word stress patterns of these three accents, it was not difficult to find some differences in word stress patterns. Just like the intonation which was discussed in the earlier section, the stress words were expressed more clearly and higher in volume in the Scottish accent than those in the Chinese accent, and the Canadian accent was in the middle.

Sentence stress

Two distinct types of stress may be seen in language (Robins, 1964): sentence stress and word stress. In the previous section, word stress has already been discussed. This part of the study looks at the sentence stress of the three accents in order to determine their differences.

Usually, in any given sentence, lexical items and some deitic grammatical items will be stressed but most grammatical items will not. However, this varies with different situations and speakers. Robins (1964) states that:

> *As a general and perhaps universal process, the whole or any part of an utterance may be stressed, that is to say,uttered more loudly and with more forceful articulation for the purpose of emphasis, so as virtually to compel the hearer to take more notice of it than the rest.* (p.109)

Therefore, speakers sometimes stress words which they think are important. The words stressed usually are pronounced louder and lengthened. The ones unstressed are lower in volume and are uttered more quickly. As a result, the unstressed words are found to be more difficult to grasp.

The following are the sentence stress patterns of the three accents involved in the present study. The five sentences which are used for the analysis have been selected from the dictation materials. The solid underlining indicates stressed words and the broken underlining refers to secondary stressed words. This analysis was done by the researcher and checked by a native speaker.

1) CANADIAN ACCENT

Families still fulfil these basic needs as they always have.
_____[1] ____ _____ ____

SCOTTISH ACCENT

Families still fulfil these basic needs as they always have.
_____ _____ _____ _____ ____

CHINESE ACCENT

Families still fulfil these basic needs as they always have.
_____ --- ----- ------ ----- ------- _____ ----[2]

---

[1] refers to stressed words.

[2] refers to secondary stressed words.

2) CANADIAN ACCENT

The goals of the Soviet and Chinese have not been fully achieved.

SCOTTISH ACCENT

The goals of the Soviet and Chinese have not been fully achieved.

CHINESE ACCENT

The goals of the Soviet and Chinese have not been fully achieved.

3) CANADIAN ACCENT

Parents have lost much of their former influence on their children.

SCOTTISH ACCENT

Parents have lost much of their former influence on their children.

CHINESE ACCENT

Parents have lost much of their former influence on their children.

4) CANADIAN ACCENT

Families of four or five or more children are less common today.

SCOTTISH ACCENT

Families of four or five or more children are less common today.

CHINESE ACCENT

Families of four or five or more children are less common today.

5) CANADIAN ACCENT

They must be able to change locations to get their jobs.

SCOTTISH ACCENT

They must be able to change locations to get their jobs.

CHINESE ACCENT

They must be able to change locations to get their jobs.

From these examples, it can be seen that the sentence stress patterns of the Canadian accent and the Scottish accent are very similar. The main difference is that the Scottish accent puts stress on most of the adjectives which are before the main nouns, but the Canadian accent does not. The sentence stress patterns of the Chinese accent are obviously different from those of the Canadian and the Scottish accents. From the examples, it can be seen that the Chinese accent puts stress on more words than the other two accents.

It can be noticed by listening to the tape many times and examining the patterns shown in Figure 1, 2 and 3 that although the Canadian accent and Scottish accent are very similar, there are still some differences which cannot be ignored, such as the level of sound. The level of loudness in the Scottish accent is higher than for the other two accents, and the time for these stressed words is also longer. But the level of sound for the unstressed words is lower than in the other two accents. As a result the changes of the sound level of the Scottish accent are very marked. Although the sentence stress patterns of the Canadian accent are very similar to the Scottish accent, the changes in the level of the sound are not as great as with the Scottish accent.

In view of the differences among these three accents in sentence stress patterns, it is not difficult to believe that the Scottish accent would be more difficult to understand, both because of the sentence patterns, and in addition, because of the wide changes in the level of the sound for the stressed and the unstressed words. As a result, some small

grammatical words are not as easy to understand, which poses a problem when the meaning of these words is critical for an understanding of the passage.

In this sense, the Chinese accent and the Canadian accent should be easier to understand than the Scottish accent, especially the Chinese accent, because the sentence stress pattern of the Chinese accent is flatter and more even in sound. Even the function words are given secondary stress, making them easier to understand.

The Canadian accent also seems easier, because the sentence stress pattern is more natural and comfortable for the Chinese subjects, and also the sound level of unstressed words and stressed words is not as marked as with the Scottish accent.

The Placement and Duration of Pauses

From the section presented earlier dealing with the speed of production of the three accents, it can be seen that the Chinese reader took the longest time to finish reading all three passages. The Canadian and the Scottish readers were very close to each other.

This section will discuss unexpected placement of pauses which distort the meaning of sense groups, the duration of the pauses, and the repetition of some words which should not have been repeated. Table 3 shows the frequency of the unexpected placement of pauses in the three accents.

Table 3

The Number Of Unexpected Pauses

Reader / Passage	Chinese	Canadian	Scottish
Reading 1	11	0	1
Reading 2	5	1	1
Reading 3	6	0	1
Total	22	1	3

Table 3 shows that the Chinese reader had 22 unexpected pauses. This number was very much higher than with the Canadian and Scottish readers. In the first passage, especially, the Chinese reader had 11 unexpected pauses which were double the number in either the second or the third passages. The Canadian reader only had one unexpected pause and the Scottish reader had 3 unexpected placements of pauses.

These unexpected placements of pauses mean that the reader stopped reading in a place other than the normal one with respect to phrases, or sentences or meaning units. It is hypothesized that these unexpected pauses make it more difficult for the listeners to understand because these pauses distort the meaning of the sense group so that listeners cannot process accurately.

Another characteristic of the pauses is that the duration of pauses by the Scottish reader is longer than is the case with either the Canadian reader or the Chinese reader. In looking at Figures 1, 2 and 3, it can be seen that the duration of pauses between sentences is longer in the Scottish accent than in the Canadian and Chinese accents even though the duration of pauses in the Canadian accent is longer than those in the Chinese accent.

Repetition of Words

Table 4 reflects the number of times that the readers corrected an incorrect word.

Table 4

The Distribution Of Repetitions of Incorrect Words

Reading \ Reader	Chinese	Canadian	Scottish
Passage 1	6	0	0
Passage 2	5	0	0
Passage 3	4	0	0
Total	15	0	0

This table shows how many times the readers corrected what they felt to be an unsatisfactory pronunciation of a word. From this table, it can be seen that the Canadian and the Scottish readers did not have any problem of this kind, but the Chinese reader repeated an unsatisfactory pronunciation 15 times: six times in passage 1, five times in passage 2 and four times in passage 3. The reason for such repetitions is very clear. They occur when the reader does not pronounce the words correctly and decides to make some corrections.

Subjects

The subjects in this study were taken from two groups studying at the University of Alberta: Chinese students from the People's Republic of China and native speakers of English (Canadian students).

Chinese Subjects

The Chinese sample was composed of 30 Chinese students, 27 males and 3 females. Most of these students were graduate students, MA, MSc, or Ph.D students. Some of them were visiting scholars (see table 5).

These subjects were selected by the following criteria: 1) they came to Canada to study in the same academic year, 1987-1988, that is, they came to the University of Alberta to study during September 1987 and January 1988; 2) all the subjects came from Faculties of Science or Engineering or from related fields (see Table 6); 3) all the subjects came from the People's Republic of China (PR China), but some were from northern China and some came from the south of China[3] (see Table 7).

Table 5

Distribution of the Chinese Subjects by Academic Programs and Sex

Identification	No. of Subjects	Male	Female
Ph. D Students	13	12	1
MA or MSc Students	9	8	1
Visiting Scholars	7	6	1
Students[4]	1	1	0
Total	30	27	3

[3] Northern China refers to the part which is on the north side of the Yangtze River and southern China refers to the part on the south side of the Yangtze River.

[4] Students who were neither graduate students nor visiting scholars, but just took some English courses in the Extension Faculty for the preparation of future graduate study.

Table 6

Distribution of Chinese Subjects in Different Departments in the University of Alberta

DEPARTMENTS	NO. OF SUBJECTS	MALE	FEMALE
Chemistry	10	9	1
Statistics and Applied Pro.*	2	1	1
Agricultural Engineering	2	2	0
Civil Engineering	1	1	0
Oral Biology	1	1	0
Surgery	1	0	1
Mathematics	2	2	0
Physics	1	1	0
Zoology	1	1	0
Chemical Engineering	3	3	0
Clothing and Textiles	2	2	0
Law Faculty	1	1	0
Rural Economics	1	1	0
M. M. P. E[5]	1	1	0
Extension Faulty	1	1	0
TOTAL	30	27	3

*-Department of Statistics and Applied Probability

The purpose of selecting subjects who came to the University of Alberta in the same academic year in the Faculties of Science and Engineering was to ensure that the subjects

[5] Mining, Metallurgical and Petroleum Engineering.

had almost the same amount of time in Canada so that they had had almost the same exposure to English. On the other hand, it was important that the subjects had almost the same background knowledge in order to eliminate the background knowledge factor on listening comprehension.

Table 7

Distribution of the Subjects by the Region of Their Home Country

SOUTHERN CHINA		NORTHERN CHINA	
PLACE	SUBJECTS	PLACE	SUBJECTS
Shanghai	7	Shangdong	4
Hangzhou	1	Beijing	2
Fuji	1	Sichuan	3
Nangjiang	1	Zhengzhou	1
Wenzhou	1	Wuhan	1
Gangdong	1	Anhui	2
		Hunan	2
		Shanxi	1
		Changsha	1
		Shenyang	1
TOTAL	12	TOTAL	18

It should be noted that although the researcher tried to find subjects who came to Canada to study in the same academic year, it was subsequently found that there were still two subjects who came to Canada before that time and transferred to the University of

Alberta in the academic year of 1987-1988, because this was realized at the first and during the interview, they pointed out such experiences. They were not eliminated because of the limitation of the number of the Chinese students.

Most of the subjects began to study English in the middle school (Junior high school and Senior high school) in China. They found that they learned English most when they studied in the universities or in some English training classes. But there were still some who did not have formal English instruction. They learned English by themselves. Most of their English teachers were Chinese although a very few subjects had native English teachers. Some subjects had had an opportunity of working and cooperating with native English speakers, such as, acting as translators for foreigners.

Quite a few subjects had finished their masters degree in China before they came to Canada. Some subjects had just finished their BA degree. There were some subjects who had already begun their masters program in China but they gave up that program and came to Canada.

Dialects Spoken by the Subjects

In China, there are many dialects. The people who speak one dialect might not understand the people who speak a different dialect. Generally speaking, there are more dialects in the south than in the north of China. The subjects chosen for this study speak different dialects. Some can speak one dialect but some can speak three or more dialects (see Table 8).

Table 8

Distribution of Subjects by Chinese Dialects

NO. OF DIALECTS SUBJECTS SPEAK	NO. OF SUBJECTS
1	3
2	11
3	7
4	3
5	2

Chinese Subjects' Education Experiences

Table 9 and Table 10 give the university entrance year in which the Chinese subjects began their undergraduate and graduate programs (MA or MSc) in China. Table 9 shows that the year in which the subjects entered the universities for the undergraduate program covers a very wide range. But most of the subjects, 56%, entered university in 1978. Table 10 shows the year in which the subjects began their graduate programs and that most of the subjects, 60%, started their graduate programs in 1982. Altogether, there are 15 subjects who were in their graduate programs before they came to Canada. These two tables show that among the total number of 25 Chinese subjects, 15 Chinese subjects had worked at the graduate level in China. This shows that most of the Chinese subjects had a strong background in their education. It also suggests that most of the subjects began their graduate programs immediately after four years of the undergraduate program.

A questionnaire was used to obtain more personal information of the Chinese subjects' education experience in China and in Canada. Of thirty subjects who were sent

questionnaires only 26 subjects returned them. One did not give information about his university entrance year, so in the table, only 25 subjects appear.

Table 9

Entrance Year For Subjects' Undergraduate Studies in China

n = 25

Entrance Year	61	62	68	73	77	78	79	80	81	Total
Frequency	1	2	1	1	3	14	2	0	1	25
Percentage	4%	8%	4%	4%	12%	56%	8%	0%	4%	100%

Table 10

Entrance Year For Subjects who Began Masters' Studies In China

n = 15

Entrance Year	78	79	80	81	82	83	Total
Frequency	1	1	1	2	9	1	15
Percentages	6.7%	6.7%	6.7%	13%	60%	6.7%	100%

Chinese Subjects' EFL Experiences

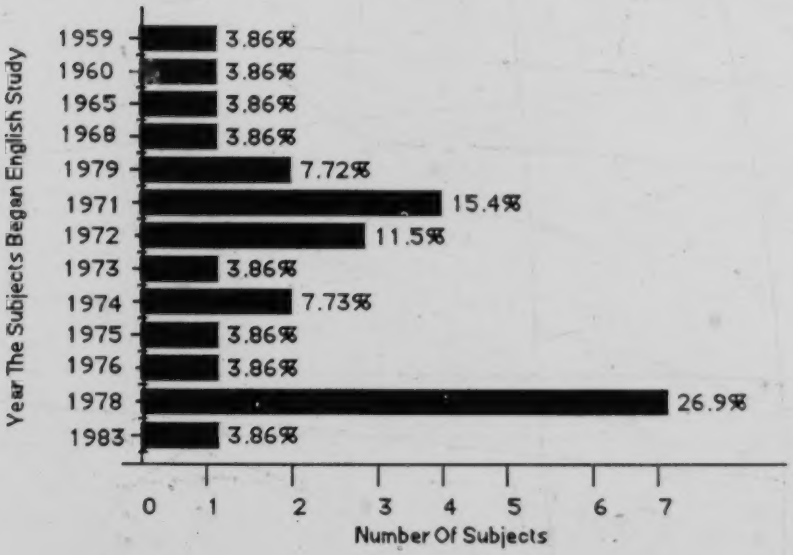
This section describes the EFL experience of the Chinese subjects before they came to Canada. The subjects were asked 1) when they began to study English; 2) how

they studied English; 3) which part of China they came from, and 4) what language, English or Chinese, was used for their English instruction.

Figure 4 shows the year when the Chinese subjects began to study English. It shows that most of the Chinese subjects began to study English after 1970 and the majority of the Chinese subjects, 26%, started learning English in 1978.

Figure 4

The Year The Chinese Subjects Began To Study English



The age when they began to study English is quite differen.. Some subjects began learning English in junior high schools, and some in university. But it should be noticed that although some subjects began to study English when they went to the junior high school, they felt that they did not really learn English during that time. Most Chinese subjects claimed that the quality of their English instruction improved once they went to the university, especially in the special English training classes just before they came to

Canada. This shows that the greatest emphasis was placed on their English education when they came into higher education or before they left to study abroad. One subject in the present study, who studied Russian at university, claimed that he did not have formal English instruction in China, but had learned English by himself. Another subject said that although he had had some English instruction, in general he learned English by himself. Therefore from the information provided, the results are the same as those claimed by Mu (1987, p.45). Subjects did not regard the English courses offered to them by the secondary school system in China as effective EFL learning experiences.

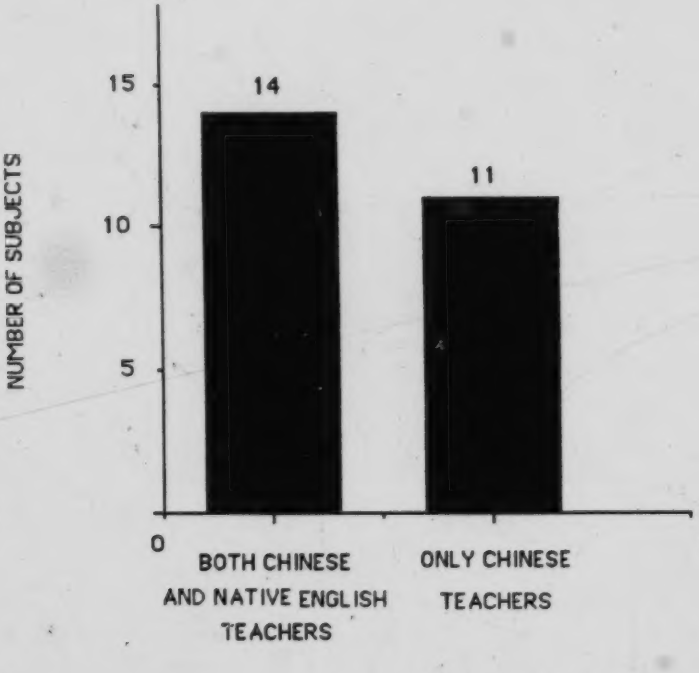
Another important characteristic of the subjects' EFL experience is related to the way in which they learned English. Almost all the subjects claimed that in their English studies in the secondary schools and even in the universities, grammar and reading were emphasized. They reported that most of their English instruction consisted of lectures. Among all these subjects, very few mentioned that they had spent time on listening and speaking in the English classes, or, for example, watching English TV programs.

About half of the subjects stated that they had had a special English training program before they came to Canada. They thought that these programs were very helpful for them because in these English training programs, they had a chance to improve their listening and speaking skills, since these programs emphasized oral language development. This concern for the oral skills indicates that before entering this program, the Chinese students may have been very weak in listening and speaking.

Figure 5 shows what kind of English teachers the Chinese subjects had when they studied English as a foreign language in China.

Figure 5

English Teachers of Chinese Subjects



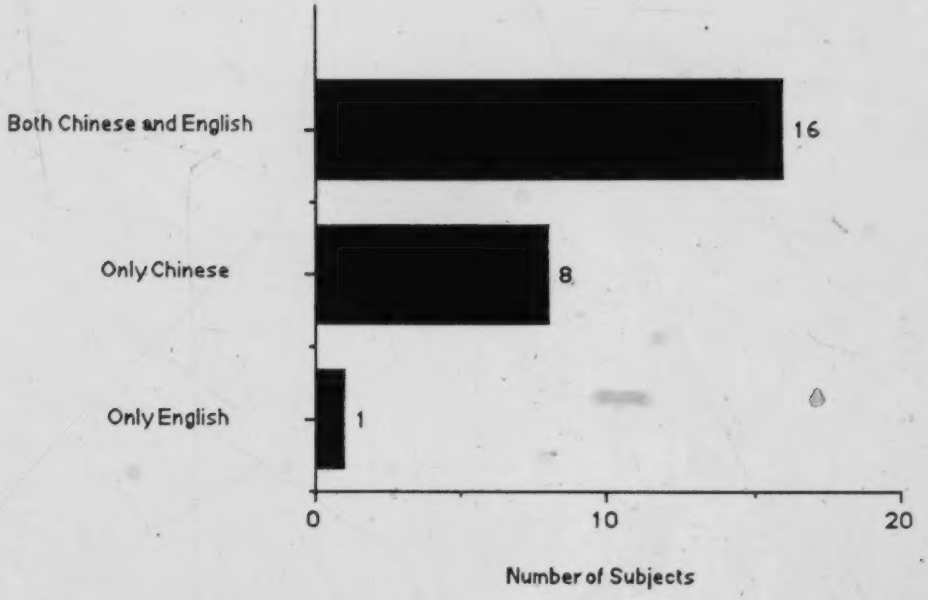
From Figure 5, it can be seen that 14 subjects had both Chinese teachers and native English teachers for their English instruction in China and 11 subjects had only Chinese teachers. But it should be noted that from the information provided, most of the Chinese subjects had native English teachers only for a very short period of time, usually when they were in the special English training classes. None had native English teachers when they started to study English in junior and senior high schools or even in the universities.

Another important characteristic which should be noticed is that most of these native English teachers were from North America. The United States provided a higher percentage than Canada. A few were from Australia and Britain. This factor showed that these Chinese subjects had more exposure to American English than to British English.

Another characteristic of EFL in China is that English was taught in Chinese in most of the cases, especially for the students whose major was in science and engineering. Figure 6 shows which language was used for instruction to the Chinese subjects in the present study.

Figure 6

Language Used For EFL Instruction



This figure suggests that most of the Chinese subjects had EFL instruction in both Chinese and English. Only one subject reported that English was the only language for his EFL instruction. From the figure, it can also be seen that eight subjects never had EFL instruction in English. Even though there are 16 subjects in the figure who reported that they had both English and Chinese for their EFL instruction, it should be realized that the time when English was used as the medium of instruction was very short. Most of the subjects had English for their EFL instruction only when they were in the special English

training classes before they came to Canada. Compared to the time when Chinese was used for EFL instruction, it is a much shorter time.

Canadian Subjects

The Canadian sample consisted of 14 Canadian students and was used as the control group. These Canadian students were all undergraduate students who were also studying in the same Faculties of Science and Engineering and similar fields as the Chinese sample in the University of Alberta but it should be noticed that there are two Canadian subjects who come from the Department of East Asian Studies. The criteria for selecting the Canadian sample were that: 1) they must be native born Canadians; 2) English must be their first language; 3) they must be studying in the Faculties of Science and Engineering or in related fields (see Table 11).

Research Instruments

In the present study, four different research instruments were employed: Standard Listening Comprehension Test, Dictation Test, Interview and Questionnaire. In this section, these four instruments are discussed.

Table 11

The Distribution of Canadian Subjects in the Different Departments in the University of Alberta

DEPARTMENTS	NO. OF SUBJECTS	MALE	FEMALE
Zoology	1	1	0
Geology	1	1	0
Physics	1	1	0
Psychology	1	0	1
East Asian Studies	2	1	1
Economics	1	1	0
Agricultural and Forestry	4	2	2
Rural Economy	1	1	0
Unknown	1	0	1
Unknown	1	0	1
TOTAL	14	8	6

Listening Comprehension Test

The Listening Comprehension Test (LCT) included the three listening passages mentioned earlier. The content of these three passages was expected to be familiar to all the subjects. These three passages were read by three female professors with different English accents (Chinese, Canadian, and Scottish). There were ten multiple choice questions for each passage, the style of which was almost the same as the third part of the listening comprehension of TOEFL test (Mini Talk). In the TOEFL test, each question only has four choices, but in the LCT in the present study, each question has five choices. In this way, it was hoped to reduce the guessing possibilities. Labo (1961) points out that the classic way

to overcome this problem (guessing) is to increase the number of items in the test. On the other hand, all the choices with answers were kept as short and as simple as possible in order to avoid the reading factors which would influence the listening comprehension. Wilcox (1978) argues that reading factors seemed to be the biggest problem in listening comprehension measurement (in multiple choice tests). Harris (1969) suggests that to minimize the reading factors, printed answer choices should be brief and lexically and grammatically simple. The subjects were also allowed to take some notes if they wished to do so. The purpose of this was to eliminate the memory factors. Harris states that:

> *As the students listen, they should take notes on important facts and dates which they might not otherwise remember. After they had listened to the recording, they will answer a series of questions about what they have heard. In deciding on an answer, they may, of course, consult their notes. However, they should not try to answer any of the questions while the recording is being played. If they do so, they may not be able to answer some of the questions because they will have missed some important points.* (p. 41)

The answer choices were typed on cards and each card only had the answer choices for one question. The subjects were given the cards but they were not allowed to read them until they had finished listening to the tape and heard the questions which were recorded on it. This was also designed to minimize reading factors, and is different from the TOEFL test which allows the examinees to read while listening. The interval time between the two questions was 30 seconds (including the time for the reading of the question sentence). It is assumed that this gave the students enough time to recall what they heard in answering the questions.

Dictation

Swan and Upton (1984) have pointed out that:

> *Oller (1979) concludes that ' standard dictation procedure was about as appropriate as any testing technique to determine the abilities of foreign students to follow spoken English in whatever context were defined'.* (p. 269)

In the present study, a dictation was also conducted in order to get more information about the subjects' listening comprehension. From these data, it was expected to find out more about what problems the Chinese and Canadian students have when they listening to different accents. The dictation consisted of 15 sentences which were almost the same length, about nine words in one sentence on the average. This decision was made according to the results from the pilot studies. All the sentences were drawn from the three passages for the listening comprehension, five sentences from each passage. Some sentences were modified in order to keep all the same length (see Appendix D).

Interview

A short interview was conducted with each Chinese subject after the listening comprehension tests. The purpose of the interviews was to get their feelings about the following points:

a) their ability to identify the three accents;

b) their feelings about these three accents;

c) their ideas about the influence of different accents on their academic studies in the University of Alberta;

d) their opinions about the difficulty level of this content and the language problems involved in the three listening passages.

The following questions were included in the interview:

1) From these accents, can you tell where these three professors came from?

2) Which accent seems the most difficult for you to understand and which seems the easiest for you? Would you please give some explanation?

3) What is the percentage of the answers on all these three passages you think you answered on the basis of guessing and prediction by your background knowledge?

4) What is the biggest problem you have had in your academic studies since you came to Canada?

5) Did you find that the professors from whom you took courses spoke with different accents? How did the different accents affect your academic studies?

6) When you studied English in China, what kind of English teachers did you have? Were they Chinese teachers or native English teachers? If they were native English teachers, what countries did they come from?

7) Was the content and the language of these three passages difficult for you?

The interview was conducted individually in Chinese (Mandarin). There was only one subject who was willing to be interviewed in English. Interviews were recorded.

Questionnaire

A questionnaire was developed by the researcher (see Appendix A & B). The purpose of this questionnaire was:

a) to get information about the English education experience that the subjects had before they came to Canada;

b) to get some personal background information;

c) to get information as to the Chinese subjects' perception of how they are performing in their academic studies.

Some of the questionnaires were mailed to the subjects after they finished taking the listening comprehension tests, and they were asked to mail them back when they completed it. Some of the questionnaires were given to the subjects when they took the listening comprehension tests and were mailed back.

Data Collection

The study was divided into two parts: pilot study and main study. The pilot study was carried out in December, 1987. The main study was conducted during January-March,1988.

The time and the place for the testing and the interview were decided according to what the subjects thought was the most suitable for them. For example, some subjects had their tests and the interview in their offices, some in their residence and some in the researcher's office. One was in a seminar room, one was in the researcher's residence and two were in a classroom. The researcher tried to establish the best settings to make the subjects feel more comfortable about taking the tests and having the interview.

Before the tests and the interview were administered, each subject was phoned in order to inform him/her of the purpose and the requirements of the study and to make clear what this study was about. Selecting the subjects for the present study was on the basis of their willingness to participate in this study.

Each subject was clearly informed as to how to do the tests before the study was started, for example, each subject was told that he/she would listen to three short passages with different accent, and after that there was a group of multiple choice question for him/her to answer, each passage having ten questions. The subjects were divided into three groups, each of which had 10 subjects. The purpose of dividing the subjects into three groups was that each group could listen to the three readings, one with Chinese accent, one

with Canadian accent and another with Scottish accent. But each group listened to these three readings in different order (see Table 12) in order to eliminate the order factors which might influence the listening comprehension.

The first test delivered to the subjects was the Standard Listening Comprehension Test and then the Dictation in which the subjects were required to write down what he/she heard as accurately as possible. The tape was only played once. After the dictation, the researcher interviewed the subject. The interview was tape-recorded. The interview was conducted in Chinese (except in one case), because this made the subjects feel more comfortable. Later on, the tape-recordings were translated by the researcher from Chinese into English in order to analyze them.

Table 12

Different Orders of the Accents

	PASSAGE 1	PASSAGE 2	PASSAGE 3
GROUP 1	CHINESE	SCOTTISH	CANADIAN
GROUP 2	CANADIAN	CHINESE	SCOTTISH
GROUP 3	SCOTTISH	CANADIAN	CHINESE

Questionnaires were delivered to the subjects right after the tests. Attached to the questionnaire was a letter which indicated the purpose of the questionnaire and some other explanations (see Appendix A). Thirty questionnaires were sent out and twenty-six returned.

Data Analysis

The data analysis was carried out with the research questions of the study in mind.

1) In order to ascertain the differences among the three accents, a comparison analysis was made in order to give some brief ideas about some characteristics of these three accents. The analysis was conducted according to the following:

a) The speed of production in these three accents. The speed was determined by calculating the overall time taken by the three professors to read the three passages. The time was compared to see whether there was a time difference among these three accents.

b) The intonation of the three accents. A mingograph, which is designed for the analysis of sound production, was used to determine the difference in intonation of these three accents.

c) The stress of the sentences and words. The readings by the three professors were compared by the researcher to determine the difference in the sentence stress and word stress among these three accents.

d) The placement and duration of pauses. The three readings were also examined by the researcher to determine the difference of the three accents in the placement and duration of pauses.

2) The data from the listening comprehension test and the dictation were separately analyzed statistically. One-way and two-way analysis of variance were used. The programs used for this statistical analysis were SAS and SPPx which were supplied by the MTS computer system in the University of Alberta with the help of a consultant from the Educational Research Services.

a) Listening Comprehension Test. The data from the listening comprehension test was analyzed to determine: 1) whether there was any difference in the performance of the

Chinese subjects with the three accents; 2) whether there was a difference in the performance of the Canadian subjects with the three accents; 3) whether there was a difference in the performance between the Chinese subjects and the Canadian subjects with these three accents; 4) whether the different order of the three accents influenced the listening comprehension.

Some other variables which influence listening comprehension will also be considered, such as the self-assessment of performance, the number of foreign languages mastered, English pronunciation, language background and English learning experience.

b) Dictation. The dictation data were analyzed to determine the number of errors which resulted from mishearing and uncertainty (Swan, 1983-1984). Misspelling was not included in the errors as it was assumed it did not result from the listening problems. Determination of these errors was made by researcher first and then reexamined by native speakers to make sure that the judgment by the researcher was correct. Second, the results from the analysis of the dictation data were analyzed by using the statistical program SAS to determine whether there was a difference in the performance within each group and between the Chinese subject group and the Canadian subject group and to determine what problems the Chinese subjects had with the three accents, and whether the Canadian subjects shared the same problems with the Chinese subjects.

c). Interview and questionnaire. Information from the interview and questionnaire was used to help understand and interpret the results from the above statistical analysis and to determine how the different accents affected subjects' academic studies.

CHAPTER FOUR

THE RESULTS OF THE STUDY AND DISCUSSION

INTRODUCTION

In this chapter, the results of the study are presented in three sections. Section One shows the results from the listening comprehension tests, designed to answer research questions 5, 6, 7, and 8[6]. In Section Two, the results of the dictation test from both the Chinese subjects and the Canadian subjects will be presented. Section Three shows the results from the interview. Both Section Two and Section Three deal with research questions 2 , 3, and 4[7].

Results from the Listening Comprehension Test

Introduction

The results from the listening comprehension test are presented in this section. They are shown in different ways. First, the results are presented on the basis of the Chinese subjects' performance of the listening comprehension test so that it can be seen whether there are any significant differences when they listen to the three accents. Secondly, the results of the performance of the Canadian subjects will be presented. Finally, the results from both the Chinese subjects and the Canadian subjects will be compared to determine if there are significant differences when they listen to the three accents.

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[6] 5. Which accent do the Chinese students comprehend better? 6. Do Canadian students perform as well as Chinese students when listening to different accents? 7. Do the Chinese students who have good English pronunciation have better comprehension of gifferent accents? 8. Do the Chinese students who speak more than one foreign language have greater ability to deal with the different accents than the students whose only foreign language is English?

[7] 2. Do Chinese students have problems when they listen to the different accents and what causes these problems? 3. Do the Chinese students have same ability to identify different accents as the Canadian students? 4. What is the influence of these problems on their academic achievement when they study in the English speaking university?

The results from other comparisons among the Chinese subjects will also be presented in this section in order to see if there are other factors which also affect listening comprehension. Comparisons will be made between the Chinese subjects who come from northern China and the Chinese subjects from the south of China; between Chinese subjects who speak more than one foreign language and Chinese subjects who can only speak English; between Chinese subjects who have good English pronunciation and the Chinese subjects who have poor English pronunciation based on the judgment of three native speakers. The results in terms of the different order of presentation of the three accents will also be discussed in order to determine whether there is an order factor involved which affects the listening comprehension tests.

Since a statistical analysis will sometimes lose information because of problems inherent in sampling and measurement, the Chinese subjects were interviewed in order to see why they performed the way they did as well as what other factors might have influenced their performance.

Results from the Chinese Subjects

The following table shows the results from the Chinese subjects on the listening comprehension tests.

Table 13

Results on the Listening Comprehension Test for the Chinese Subjects

Accent	Chinese	Canadian	Scottish
Mean	5.13	5.33	4.73
S.D.*	1.54	1.93	1.84

*- Standard Deviation

The ANOVA analysis has shown that there is no significant difference when the Chinese subjects listened to the Canadian accent, the Scottish accent and the Chinese accent.

However, it should be noticed that Table 13 shows that the Chinese subjects performed best in listening to the Canadian accent. The degree of the success with the Chinese accent is between the Canadian accent and the Scottish accent. The result shows that the Scottish accent is the most difficult for the Chinese subjects to understand.

Results from the Canadian Subjects

Table 14 presents the results of the Canadian subjects' performance when they listened to the three accents.

Table 14

Results on the Listening Comprehension Test for the Canadian Subjects[8]

Accent	Chinese	Canadian	Scottish
Mean	6.51	7.73	6.85
S.D.*	0.76	0.75	0.31

*- Standard Deviation

The results shows that the Canadian subjects performed almost equally well with all three accents. The ANOVA does not show any significant difference when they listened to these three accents.

[8] The number of the Canadian subjects is different from that of the Chinese subjects. Fourteen Canadian subjects are involved in this study. But for the Chinese subjects, there are thirty.

Although there is no difference which is significant, it should be realized that the Canadian subjects did best with their own local accent, with the Scottish accent in the middle and the Chinese accent last.

Results from the Comparison of the Chinese Subjects and the Canadian Subjects

The statistical analysis was also done between the Chinese subjects and the Canadian subjects in order to see if there was a significant difference between these two groups when they listened to the three accents. Table 15 Shows the results.

Table 15

Results of Statistical Analysis of Variance of All Three Accents between Groups of Chinese Subjects and Canadian Subjects

		CHINESE ACC.	CANADIAN ACC.	SCOTTISH ACC.
MEAN	CHINESE GROUP	5.15	5.33	4.73
	CANA. GROUP	6.51	7.73	6.85
S.D.*	CHINESE GROUP	1.54	1.93	1.84
	CANA. GROUP	0.76	0.75	0.31
SIG. DIFF.		0.008	0.0001	0.0002

* - standard deviation

The results shows that the Canadian subjects did significantly better than the Chinese subjects when they listened to the Chinese accent, the Canadian accent and the Scottish accent.

Considering the performance on the listening comprehension in a global way, the statistical analysis also shows that the Canadian subjects did significantly better than the Chinese subjects ($p = 0.0001$).

Interestingly, although the results did not show that there is interaction between the Chinese subjects and the Canadian subjects on the performance of the listening comprehension, there is a significant difference when listening to the Canadian accent and the Scottish accent if considering the Chinese subjects and the Canadian subjects as a whole group ($p = 0.0465$).

Results of the Order Factor

The analysis of variance was also carried out to see whether the different order of these accents would make a difference to the listening comprehension. The results show that there is a significant difference with $p = 0.028$. There might be several reasons for this which will be discussed latter.

Results of the Other Comparisons Among the Chinese Subjects

The statistical analysis shows that there is no significant difference in other comparisons among the Chinese subjects such as pronunciation, the number of foreign languages they speak, or the region of China they come from.

Discussion

From the statistical results which are presented above, the following conclusions can be drawn.

1. The Chinese students understand the Canadian accent better than the Chinese accent. In other words, we might say that the Chinese students understand the native speaker better than their local speaker, a person for whom English is his/her second

language. This agrees with the results from a previous study by Ortmeyer and Boyle (1985). In their study, they found that the Chinese students understood native speakers (American English and British English) better than the local speakers.

However, there are two points which cannot be ignored. In this study, the listening materials read by three speakers are the same, in other words, the form and the structure of the language are controlled. The only difference remaining is their accent. In a real life conversational situation, for example, when two people talk with each other, the local speakers probably will be easier to understand than two native speakers. That is because in this case, the variables are not just the accent, but also the way of expressing ideas, the way of constructing sentences, and the cultural experiences which are involved as well. Since people who come from the same country and speak the same mother tongue share more of these variables, it might be easier for them to understand each other in a real conversation.

The term 'native speakers', as used in this study, has some limitations, that is to say, the notion that native speakers are easier to understand does not necessarily mean that all native speakers are easier to understand than all local speakers. For example, in this study, the results show that the Scottish speaker, who can be defined as a native speaker, is the most difficult to understand for the Chinese subjects. Therefore, the term native speaker must be treated with caution.

It should be noticed that both in this study and Ortmeyer and Boyle's study (1985), the Chinese students had some opportunities of being exposed to native English speakers because in Ortmeyer and Boyle' study, the Chinese subjects were selected from Hong Kong where English is also an official language and where there are a lot of native English speakers who either live there or do business there. In this study, although the Chinese subjects are different from the Chinese subjects in Ortmeyer and Boyle' study, they still have had experience at being exposed to native speakers. From Chapter Three, we can see

that most of the Chinese subjects had some training by native speakers before they came to Canada. For the listeners who never had a chance to listen to native speakers, the situation might be different.

2. The Canadian subjects have had a greater opportunity to deal with the different accents than the Chinese subjects. From the results, it can be found that even though the Canadian subjects performed worst with the Chinese accent, their performance is still significantly better than that of the Chinese subjects. This might imply that language environment is a very important factor in improving listeners' listening comprehension ability in dealing with a variety of accents. The Canadian subjects have had a lot of exposure to different accents because in Canada there are many people who come from all over the world. In addition, English is the first language for the Canadian subjects. They learned it from childhood. Therefore, the language fluency and proficiency of the Canadian subjects are much higher. Secondly, the listening materials were selected from a textbook which was written by western people. Although the topics of the listening materials are familiar, the perspective and examples are new to the Chinese subjects. On the other hand, there are some historical events mentioned in the materials, which may also cause problems for the Chinese subjects. In considering familiarity with the content of the materials, the Canadian subjects are also in a better position.

3. Statistical analysis also shows that order factor had some effect on listening comprehension. This implies that what you listen to first and what you listen to later also makes a difference in comprehension. There might be several reasons. a) Familiarity with the accent, since previous research (Gass and Varonis, 1984; Brown, 1968) has found that the more familiar you are with the accent, the easier you will understand that accent. b) Increasing familiarity with the test procedure. Usually at the beginning, skill in doing this test is not as good as later on. c) Anxiety. At the beginning of the tests, listeners might have some anxiety or tension. As time passes, they become more used to it and their anxiety will

be reduced. d) Familiarity with the content. At the beginning of the test, the listeners are not as sure about what the content of these materials will be, but after doing the first section, they have some idea about what the passages are talking about. When doing the second one, they already have some idea about the content because they were told that the three passages are very similar in content.

Discussion of Other Variables

The statistical analysis did not show significant differences with respect to certain other aspects when considering the Chinese subjects' performance in listening to these three accents. For example, there is no significant difference between the performance of the Chinese subjects from the north part of China and the Chinese subjects from southern China, nor between the Chinese subjects who can speak more than one foreign language and the Chinese subjects who can only speak English. In addition there is no significant difference between the Chinese subjects who have good English pronunciation and the Chinese subjects who have poor English pronunciation.

Although in these comparisons, no significant differences have been found, if specific individuals are examined more closely, some interesting points can be still found, which might also have implications for the process of listening comprehension.

1. Generally speaking, the Chinese subjects, as a whole group, comprehended the Canadian accent best and the Chinese accent was in the middle. However, it should be noticed that there are some Chinese subjects who got higher scores with the Chinese accent. It was found that all of these subjects are from the south of the China and that the place they came from is close to the place where the Chinese speaker originally came from. This might indicate that if listeners share the same dialect or a closer dialect in their mother tongue with the speaker, it might be easier for the listeners to understand the speaker when the speaker speaks another language. In China, there are many kinds of dialects. The

people from the north of China might not understand the people from the south of China. Sometimes, even within the same area, people speak different dialects and they cannot understand each other.

2. From the scores that individual Chinese subjects got in the listening comprehension, it can also be found that the more exposure to the accent the subjects had, the easier it is for them to understand. For example, there is one subject who performed best when listening to the Scottish accent although most of the Chinese subjects received the lowest scores with this accent. The data shows that before he came to Canada, he had studied in England for several years doing his Doctoral degree. Therefore, he had a great deal of exposure to British English, including a variety of dialects, such as the Scottish accent. This may be why he obtained the highest scores in listening to the Scottish accents. This point agrees with the findings of Smith and Bisazza (1982) in their study.

3. Another finding is that Chinese students who had had some English instruction in English before coming to Canada performed better on the listening comprehension test than those who had had English instruction given in Chinese.

4. Overall, the Chinese subjects from the south of China performed better on the test than did the Chinese subjects from northern China. The reason for this may be that the people in the south of China had slightly more opportunities of talking to native English speakers than did the people in the north. This is because southern China used to be more open to foreign countries than northern China and this is still the same today, since in the south there are more activities involving foreign countries such as trade and academic exchange programs (Recently, the situation in the north has changed). Because of this, the people in the south of China are slightly more sensitive to foreign languages than are the people in the north.

5. The results do not show much difference between the Chinese subjects who can speak two or three foreign languages and those who can only speak English. Therefore it is difficult to say how much this variable influences listening comprehension.

6. One of the most interesting findings is that the confidence of the Chinese subjects in their ability to deal with these three accents is highly correlated with their achievement on the listening comprehension tests.The group of Chinese subjects who claimed that the Chinese accent was the easiest obtained the highest scores with the Chinese accent. The group who claimed that the Canadian accent was the easiest performed best with the Canadian accent and it is the same for the group who claimed the Scottish accent was the easiest. This indicates that listeners' self-assessment might be a fairly accurate indicator of their performance in listening comprehension.

7. How does the variable of the subjects' English pronunciation affect listening comprehension? The results showed that the Chinese subjects with good English pronunciation did not perform significantly better than the subjects with poor pronunciation. However they obtained higher scores overall. This might imply that it is easier for listeners who have good pronunciation to comprehend than listeners with poor pronunciation.

Summary

This section of the thesis shows the statistical results from the listening comprehension test for both the Chinese group and the Canadian group. The results indicate that there is no significant difference on the subjects' performance when the Chinese subjects listened to the Canadian accent, the Chinese accent and the Scottish accent. It is the same for the Canadian subjects. However, the Canadian subjects performed significantly better than the Chinese students with all three accents. Changes in the order of presentation of the accents to the Chinese subjects were found to be significant. The

difference of the performance on listening to the Canadian accent and the Scottish accent was also found to be significant when considering the Chinese subjects and the Canadian subjects as one group.

Although there are other areas of the study where no significant differences have been found, some interesting questions have been raised, such as the listener's self-assessment of his or her ability to comprehend a specific accent; the amount to which they have been exposed previously to English, their own language background, and their own pronunciation of English.

RESULTS FROM THE DICTATION

INTRODUCTION

A dictation test was conducted immediately after the listening comprehension test. The dictation included fifteen sentences using the three accents, each accent having five sentences (see Appendix D).

The dictation was marked on the basis of mishearing and uncertainty, rather than focusing on errors of misspelling because here we are only looking at the mistakes caused by problems in listening comprehension. Swan (1983) states that it is extremely important to discriminate between types of errors influenced by the auditory comprehension process.

The analysis of the dictation put all the errors into seven categories, A, B, C, D, E, F and G, respectively. The definition of each category is explained below:

A __ mishearing of one word for another in a way that nevertheless apparently makes sense in the context of the sentences;

B __ mishearing of one word for another in a way that does not make sense in the context of the sentences;

C __ failure to hear a part of a word;

D __ failure to hear a word;

E __ failure to hear a whole sentence;

F __ mishearing resulting in the addition of more words;

G __ uncertainty leading to a doubt about words which were originally correct.

The results from the dictation were compared with the results from the listening comprehension test so as to confirm the performance on the listening comprehension test by the Chinese subjects and the Canadian subjects in dealing with the three accents. In addition the particular problems that the Chinese subjects had judging by an analysis of the dictation were examined.

The results of the analysis of the dictation written by the Canadian subjects will be also shown in order to make a comparison with the Chinese group possible.

CHINESE SUBJECTS

Table 16 shows the dictation errors for each category by accent for the Chinese subjects.

Table 16

Distribution of Dictation Errors of Each Type by Accent for the Chinese Subjects

Error / Accent	A	B	C	D	E	F	G	Total
CHINESE	26	69	85	225	20	39	4	468
CANADIAN	31	87	83	206	14	62	3	486
SCOTTISH	30	93	77	224	10	56	6	496
Total	87	249	245	655	44	157	13	1450

Generally speaking, from the total number of errors for each accent, it can be seen that the Chinese subjects made the most mistakes in the Scottish accent. They made fewer mistakes in dealing with the Canadian accent and the the least in working with the Chinese accent although the totals are very close to each other. This, again, shows that the Chinese subjects had the most difficulty with the Scottish accent, which agrees with the results of the listening comprehension test. Notice should be taken of the results of the Chinese

accent and the Canadian accent in which the errors made with the Canadian accent are more than with the Chinese accent. This does not match the results of the listening comprehension test. This might imply that the nature of the dictation test may be different from the listening comprehension test. In the listening comprehension test, the listeners were exposed to a whole passage, but in the dictation test the listeners were only exposed to one sentence. Even though the pronunciation of the Chinese reader was neither as accurate nor as fluent as that of the Canadian reader and the Scottish reader, the speed of the Chinese reader was lower. Therefore, if only one sentence is involved, the Chinese accent might be easier to listen to and remember than is the case with the Canadian accent.

In examining the number of errors in individual categories, it can be found that there are more mistakes of type B-mishearing of one word for another in a way that does not make sense in the context of the sentences than those of type A-mishearing of one word for another in a way that nevertheless apparently makes sense in the context of the sentences. This indicates that it may be very difficult for the Chinese subjects to grasp the meaning of the whole sentence. Most of the time, they could not catch the meaning of the sentence clearly so they could not choose suitable words to replace the ones which they did not grasp. That is why they made many more errors through selecting incorrect words which did not make sense in the context of the sentence.

It can also be seen that the category containing the greatest number of errors is type D, which is about 8 to 9 times more than category A. In this category, while the Chinese subjects seem to perform best with the Canadian accent, results for the Chinese accent and the Scottish accent are very close. Why have the Chinese subjects made the most mistakes in this category? According to the analysis of the dictation, there may be several reasons for this:

1) Subjects are hearing new words, which they never learned, so it is very obvious that they cannot write them down;

2) Subjects fail to grasp function words such as " a", " the", " then", "or" and the prepositions; these words are usually unstressed and therefore are pronounced at a lower pitch with a shortened, reduced vowel. This is especially difficult for listeners for whom English is a second language;

3) Subjects are unable to remember the entire sentence, since many of the Chinese subjects apparently listened to the sentences word by word rather than dealing with the sentence as a whole. It is much more difficult to remember every word individually without grasping the meaning of the whole sentence;

4) Some subjects have never had experience with such dictation exercises. When they did this test, they felt more tension, which would also influence their listening performance.

Interestingly, in error category E, the Chinese subjects performed best with the Scottish accent. This indicates that reading a little bit faster might help them to catch the meaning of the sentences and make it easier for them to remember the entire sentence.

In category B, the number of errors with these three accents is very close, but the overall number of errors is quite large, which shows that the Chinese subjects made the second largest number of mistakes in this error category. Quite a few of the Chinese subjects missed parts of the words in many places. Most of the errors include the ends of words, especially the grammatical indicators, such as the plural forms "s", or the form of the verb tense. This kind of error is very common for second language listeners, especially for learners whose first language is different from English.

From error category F, it can be found that the Chinese subjects made quite a few errors by putting additional words into the sentences. Most of the additional words are also function words, such as " the", " a", " an" " and" and the prepositions. Table 16 shows that the number of these errors in the Chinese accent in category F is much smaller than

with the other two accents. This might result from the reading speed and the intonation. From the earlier part of this study, it is known that the Chinese accent is slow and its intonation is flatter. Even for the function words, they are pronounced clearly. Therefore, it is easier to grasp these words.

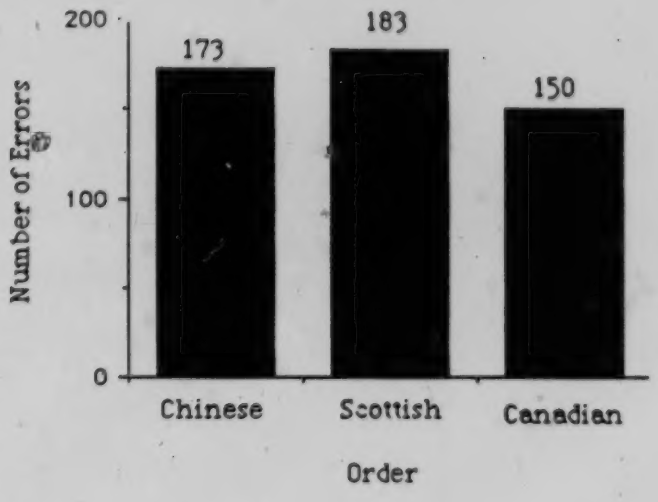
It should also be noticed that the order in which the accents were heard also produced some differences in the performance of the dictation. All three groups of Chinese subjects except for group one did more poorly in the first group of sentences than in the later group of sentences. The following figure show the patterns for this.

Figure 7

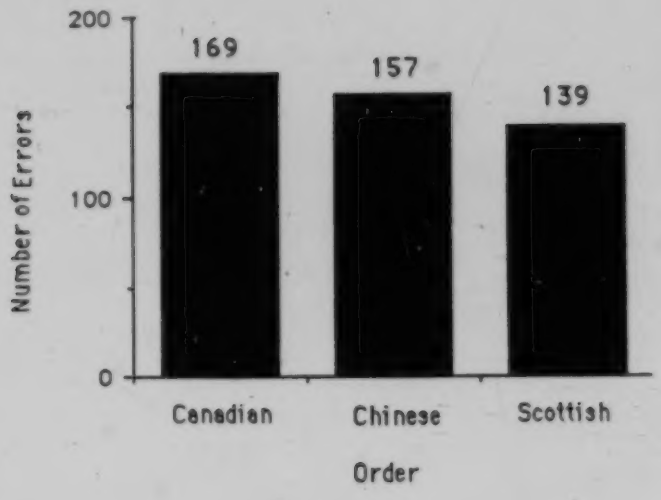
Influence of the Order Factor in the Dictation Test

(Chinese Subjects)

Group One



Group Two



Group Three

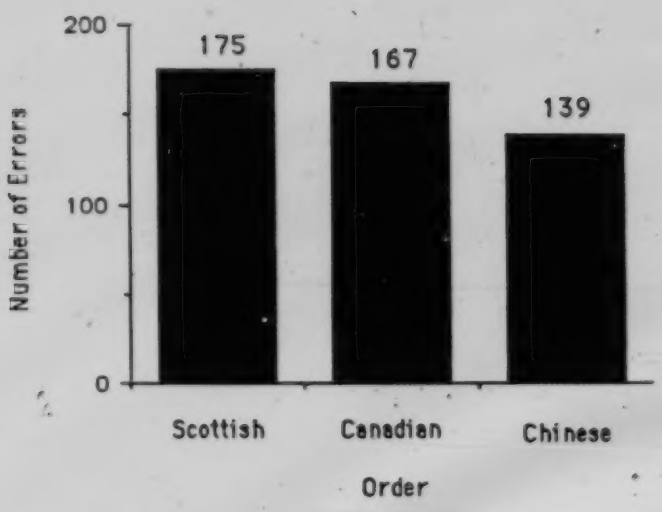


Figure 7 reflects that all three groups of Chinese subjects made the least errors in the last accent heard and the second least in the middle accent except for the first group. The greatest number of mistakes were made in the accent which they listened to first. This implies that the performance on the dictation has something to do with the order factor, that is, with the subjects' familiarity with the accent.

RESULTS FROM THE CANADIAN SUBJECTS

The Canadian subjects were also given the same dictation test as the Chinese subjects. The results are shown in Table 17.

Table 17

Distribution of Dictation Errors of Each Type by Accent for the Canadian Subjects

Error / Accent	A	B	C	D	E	F	G	Total
CHINESE	4	20	8	17	3	9	0	61
CANADIAN	7	1	8	13	0	9	0	38
SCOTTISH	14	16	13	15	0	14	0	72
Total	25	37	29	45	3	32	0	171

This table shows that the total number of errors made by the Canadian subjects is much much lower than the number made by the Chinese subjects. Although there were fewer Canadian subjects than the Chinese subjects, about half, the total number of errors is still much lower, about four times lower than the errors made by Chinese subjects. This indicated that Canadian subjects performed much better than the Chinese subjects in the dictation test.

In examining the types of errors, it can be seen that the type D errors-failure to hear a part of a word were greatly reduced, when compared with the Chinese subjects. This shows that the Canadian subjects can grasp almost all the words and very few were missed. In the case of the type of the missing words, it was found that most of them are not content words, but function words and modifying words, such as "more", "or", " again ", "their'. This implies that the Canadian subjects are more capable of grasping the overall meaning of the sentences when listening.

These characteristics can be reflected from other evidence. The number of type A errors is very close to Type B errors, not like the results from the Chinese subjects, in which the type B errors are 2 or 3 times greater than the type A errors. This also indicates that the Canadian subjects can use appropriate words to take the place of the words which they did not catch, and the words that they used to substitute for other words make sense in the context of the sentences. On the other hand, the Canadian subjects performed especially well with the Canadian accent. There is only one word which when substituted did not make sense in the sentence. All the others, 7, made sense.

Interestingly, the Canadian subjects still made quite a few mistakes by adding extra words to the sentences. It was found that most of these words were also function words, such as the articles, especially the definite article.

Another characteristic which can be found from the table is that the Canadian subjects performed best with their own accent, which agrees with the results of the listening comprehension test.

Table 18 shows the average errors for each subject of both Chinese and Canadian in different categories. The comparison produces a very clear picture of how differently the Chinese and Canadian subjects performed in the dictation test.

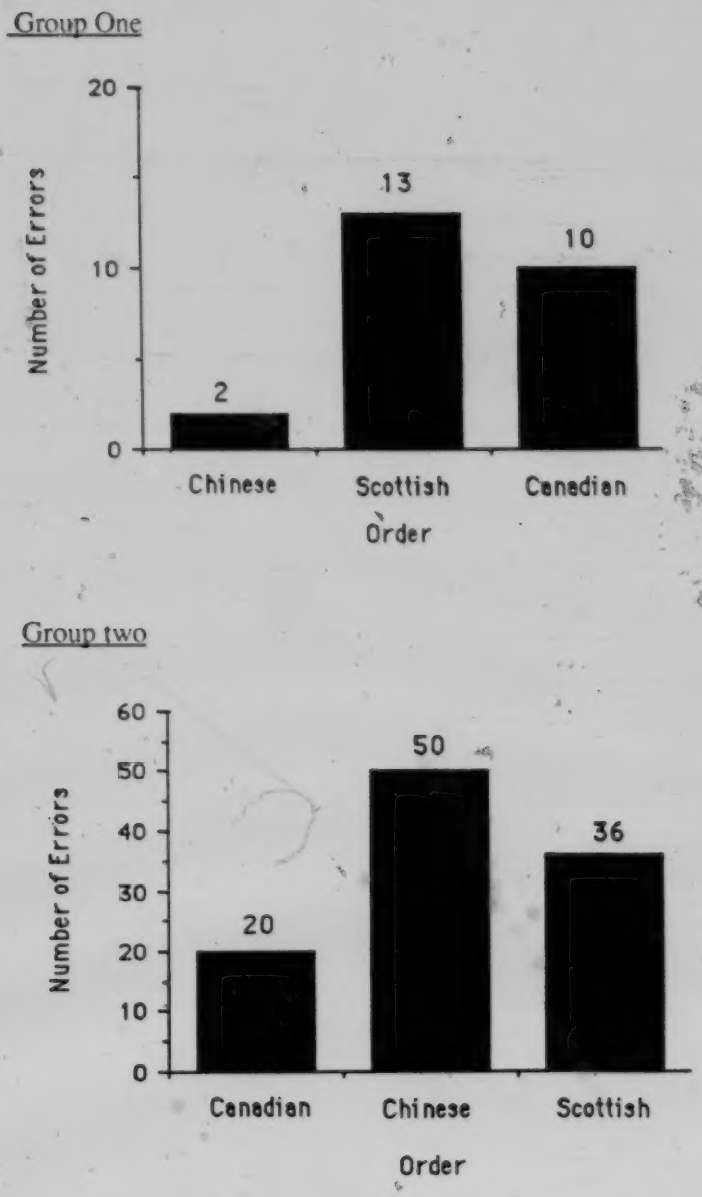
Table 18

Distribution of Errors for Both Chinese Subjects and Canadian Subjects in Different Categories in Dictation Test

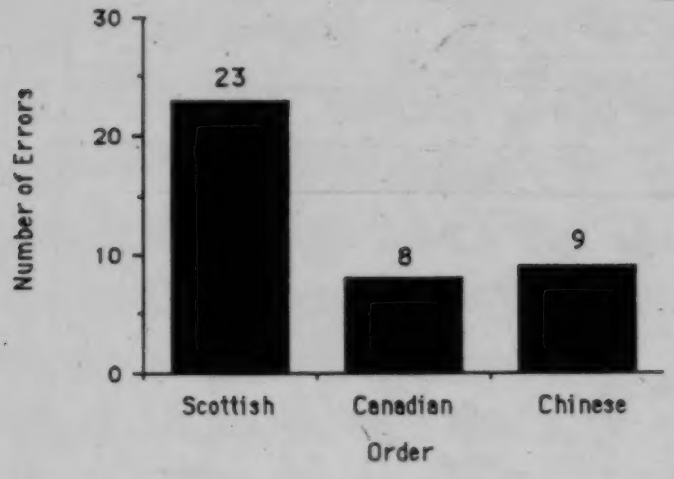
Error / Subject	A	B	C	D	E	F	G
CANADIAN	1.78	2.6	2.07	3.2	0.21	0.07	0
CHINESE	2.9	8.3	8.17	21.8	1.5	5.23	0.4

The influence of the order factor for the Canadian subjects did not show up as did the pattern for the Chinese subjects. Figure 8 shows the order pattern.

Figure 8
Influence of the Order Factor in the Dictation Test
(Canadian Subjects)



Group Three



SUMMARY

This section has presented the results from the performance on the dictation tests for both the Chinese and the Canadian subjects. The results show that the Chinese subjects made many more errors than the Canadian subjects. Mainly, these errors are those of failure to hear a word, mishearing one word for another which does not make sense in the sentence, and failure to hear part of a word. To some extend, the dictation results agree with those from the listening comprehension test. However, the Chinese subjects, this time, performed slightly better with the Chinese accent than they did with the Canadian accent. It was also found that the Canadian subjects did much better with all three accents. Most of the words that they missed are function words.

THE INTERVIEW

INTRODUCTION

The interview, a qualitative research approach, was adopted in this study because it was found that some research questions are difficult for quantitative research methodology to answer. Masemann (1983, p.542) has pointed out that it was considered that a combination of two methodologies could clarify a complex situation more fully than either could alone, and that an interdisciplinary approach to the evaluation of bilingual education could give a more satisfactory account of linguistic, cognitive, and sociocultural processes operating in the bilingual classroom than could one methodology alone.

Immediately after the listening comprehension test and the dictation test, a short interview was conducted with each subject individually. Each subject was asked a set of questions (see Chapter Three) and a taperecorder was used to record the answers. The interview was only held with the Chinese subjects. For the Canadian subjects, only a few questions were asked and these were in written form. The interview was designed mainly to answer research question 2 (Do Chinese students have problems when they listen to these different accents and what causes these problems?) and research question 4 (What is the influence of these problems on their academic achievement when they study abroad?)

This section will present the results from the interview under the following headings: 1. Ability in identifying the three accents; 2. the problems in listening comprehension in relation to the three accents; 3. the effect of different accents on the subjects' academic studies.

ABILITY TO IDENTIFY THE THREE ACCENTS

Both the Chinese subjects and the Canadian subjects were informed when they did the listening comprehension test that they would listen to three passages with three different accents and after that they would be asked to identify the three accents.

Table 19 shows the distribution of the identification of the three accents by the Chinese subjects. The total number of subjects is twenty-eight.

It can be clearly seen that the Chinese subjects who correctly identified the three accents is quite low.

The results show that the Canadian subjects were more successful in identifying the three accents than the Chinese subjects.

Most of the Chinese subjects were not as confident about the identification of the three accents. In terms of the Chinese accent, only nine subjects out of 28 claimed that this accent was Chinese accent or Chinese accent with Hong Kong dialect. All that the others could distinguish was that this accent was not native English, and that this reader was a reader for whom English was her second language, but they could not figure out what accent it was. One said that it was the accent from India and one claimed that it was a Korean accent or Japanese accent. For the Canadian accent, twelve out of 28 claimed that this accent was an American accent or a North American accent.

Table 19

Distribution of the Identification of the Three Accents by Chinese Subjects

		ACCENT ACTUALLY HEARD		
		CHINESE	CANADIAN	SCOTTISH
SUBJECTS' PERCEPTION	CHINESE	9	1	0
	AMERICAN	0	12	6
	BRITISH	0	2	7
	NATIVE ENGLISH	0	3	1
	ESL	7	0	1
	ASIA	4	0	0
	EUROPE	0	0	1
	KOREAN, JAPAN	3	0	1
	INDIAN	1	0	0
	NOT SURE	4	10	11
	TOTAL	28	28	28

For the Scottish accent, only seven subjects out of 28 mentioned that this accent was a British accent. Many subjects claimed that they were not sure. There were several who said that this accent was an American accent. One claimed that this was a British accent with American features.

Table 20 displays the results from the Canadian subjects for the identification of the three accents. The total number of subjects is fourteen.

This table shows that very few of Canadian subjects failed to identify the three accents correctly. The results indicate that the ability to identify the different accents by the Canadian subjects is much higher. Why is there such big difference between the Chinese subjects and the Canadian subjects in the identification of the different accents? There are probably several reasons. The most important one is that the Canadian subjects have had many more opportunities to be exposed to a variety of accents than have the Chinese subjects. First, the Canadian subjects were born and grew up in Canada where there are many people who came from different countries all over the world, most of whom speak English with different accents. Therefore, everyday, the Canadian subjects can hear these different accents by talking to these people, by watching TV and in many other ways. Second, most of the Canadian subjects involved in this study reported that they had travelled at least to the United States. Some had been to Europe and other countries. In this way, they also had opportunities to have experience with different accents.

Table 20

Distribution of the Identification of the Three Accents by Canadian Subjects

		ACCENT ACTUALLY HEARD		
		CHINESE	CANADIAN	SCOTTISH
SUBJECTS' PERCEPTION	CHINESE	10	0	0
	CANAD. AMER.	0	12	0
	BRITISH, SCOT	0	0	10
	ORIENTAL	1	0	0
	EAST INDIAN	2	0	0
	IRISH	0	0	2
	SCANDINAVIAN	0	0	1
	AUSTRALIAN	0	0	1
	KOREAN	1	0	0
	NOT SURE	0	2	0
	TOTAL	14	14	14

For the Chinese subjects, however, the situation is quite different, since they have not had such opportunities. For most of the Chinese subjects this is the first time that they have left China to study in an English-speaking country and they have been in Canada only for a few months. Therefore the exposure to different accents has been very limited. On the other hand, while they were in China, the situation was even worse. There, they hardly had

any chance to talk to foreigners, so it was almost impossible for them to be exposed to different accents. Although some of the subjects had had some native teachers, the chance to be exposed to a variety of accents was still very limited. From 1966 to 1976, the 'door' of China was closed because of the political movement named 'the Cultural Revolution'. Very few foreigners were allowed to go to China, especially foreigners from the western countries. Since 1977, China has opened her 'door' again. More and more foreigners have come to China to carry out many different kinds of activities. However, since the amount of exposure to different accents is still limited, the Chinese subjects have had a very limited amount of exposure to different English accents compared with the Canadian subjects. That might be the major reason for the differences between the two groups in their ability to identify the three accents. On the other hand, some accents are unfamiliar to the Chinese subjects. Probably this is the first time that they met these accents. Therefore this kind of unfamiliarity will introduce some 'noise' to their listening, which also bring great difficulties for them. One of the Chinese subjects explained in the interview that:

> *"Native English speakers have greater ability to deal with the different accents. For example, there is an Indian student in our department. I could not understand what he said, but the Canadian students understand him very well. The reason is that the Canadian students have more chances to be exposed to a variety of English"*

PROBLEMS IN LISTENING COMPREHENSION INVOLVING A VARIETY OF ACCENTS

In the interview, each Chinese subject was asked which accent they thought was the most difficult to understand and why this was so. They were also asked what problems they had when listening to professors with different accents in classes. The majority of the Chinese subjects responded that the Chinese accent was the most difficult to understand. But there were still other subjects who claimed that the Scottish accent was the most difficult. Many subjects reported that they had some problems when listening to different

professors with different accents. This is just as described by James and Lloyd (1973) who said that English people were so difficult to understand, and even the most able overseas students complained about this when they came to Britain to study.

The problems which caused difficulties for the Chinese subjects were the following:

Pronunciation

Many of the Chinese subjects reported in the interview that one of the main problems which caused difficulties in listening to different accents was pronunciation. Some subjects stated that:

> *"The pronunciation of the first passage [the Chinese accent] is very strange so it seemed more difficult".*
>
> *"The first accent [the Chinese accent] seems very difficult, because its pronunciation is not so correct and clear".*

Other subjects claimed that they found some professors very difficult to understand because their pronunciation was not the same as theirs. One subject felt that:

> *"The differences of pronunciation between the listeners and speakers also causes difficulty in listening comprehension".*
>
> *"I feel that the British accent is easier to understand because the British pronunciation is the same as I learned and as indicated in the dictionary".*
>
> *"The first passage [the Chinese accent] is the most difficult because the pronunciation is different from what I am used to".*

Therefore, pronunciation is an important factor in listening comprehension. As illustrated in the second section of this chapter, the pronunciation of the Chinese reader is very different from the other two, which is why most of the Chinese subjects as well as the Canadian subjects claimed that the Chinese accent was the most difficult.

Speed

Speed is another factor which affects listening comprehension. Some subjects claimed that they found some professors difficult to understand because of the speed with which they spoke. Among the three accents involved in the present study, the Scottish accent was found to be very difficult by a few subjects. One of the main reason is that they felt it was too fast. One Chinese subject stated that:

> *"I found that some British people were easier to understand and some were difficult. Probably, the speed is one of the reason".*

> *"In my Department, there is one professor who speaks very fast. At first, I found that it was very difficult to understand him. But later I got used to it".*

Therefore, if the speed is too fast, it makes listening more difficult. But on the other hand, it has been found that if the reading speed or the speaking speed is too slow, that is also a problem. There are several subjects who claim that they found that the Chinese accent was more difficult to understand because they felt the speed was too slow. One of the subjects said in the interview that:

> *"When the speed is slow, the words I heard will be forgotten before I hear the next words. If the passage is read in the normal speed, the words come into the mind continuously, so it is easier to catch the whole meaning".*

From this, it can be clearly seen that if the speed is too slow or too fast, both will cause problems for the listeners. As for concern with the speed, there are two speed limitation points, an upper limit and a lower limit. If the speed is beyond these two limits, listeners will find it difficult to understand. But within these two limits, the lower the speed, the easier it is to understand.

Placement of Pauses and Repetition of Words

As indicated in the section on the characteristics of the three accents, the Chinese reader paused in unexpected places and repeated some words during reading. The interview reflects that this also causes some problems for the Chinese subjects. Many Chinese subjects claimed that the speaker with the Chinese accent was not fluent in reading, so that when they listened to this accent, they felt uncomfortable. This occurred not only because of the pronunciation, but also because of the unexpected pauses in the sentence and the repetition of some words as well. The following is quoted from what some subjects said in the interview.

> *Another problem of the third passage [the Chinese accent] is that the reader did not read fluently and continuously, - - - .There are too many broken sentences in the passage. Most of pauses are not in the appropriate places.*

> *The Chinese accent is the most difficult although the speed is slow. The reason is that some pronunciation is not so correct and clear, and the stop is not at the right place. But some places which should stop did not stop.*

Intonation and Stress

There are several subjects who complained that intonation and stress also cause some listening problems. From the previous section, it can be found that the intonation and the stress of the Scottish accent seems more changeable than with the other two accents. The Chinese accent also does not have correct and natural intonation. Some subjects stated that:

> *The intonation is not comfortable to listen to and there are also some unexpected stresses [refers to the Chinese accent].*

> *- - - - and also the intonation is very strange. It is not comfortable to listen to it [refers to the Chinese accent].*

Stress is also a very important factor. The Scottish accent shows a clear distinction between stressed syllables and unstressed syllables. The greater the number of unstressed syllables between two stressed syllables, the greater seems to be their speed of delivery. As a result, some sounds, including some vowels, appear to be omitted. This will make listening comprehension more difficult. James and Lloyd (1973) state that:

> *All these features, characteristic of or consequent on English rhythm - - the 'omission; the reduction'; and the 'fast delivery' of unstressed syllables -- give rise to the complaint that English people's talk too fast and 'swallow their words'.*

Retention

Another problem in a dictation test is the retention of what has been heard. Some subjects complained that although they understood at the moment at which they heard the utterance, it was found to be very difficult to keep the message in the mind. In other words, their memory system was overloaded, and they could not both process new information and store it. One subject mentioned in the interview that generally speaking, it was not difficult to understand the meaning of these two passages (the Canadian accent and the Scottish accent). The problem was whether you could remember it or not. Many subjects reported that when they finished listening and began to answer the questions, they found that they could not remember all the information.

Sound Level

A few subjects in the interview reported that they found that some professors spoke in the class with a very low voice. This also causes some problems in listening comprehension. For the Chinese students, especially those who have just arrived, their listening comprehension skills are very poor. If they meet some professors having an accent with which they are not familiar, it will make it difficult for them to understand. But, if they meet some professors who not only have an unfamiliar accent but who also speak at

a lower volume, they will find it even more difficult. One of the Chinese subjects claimed that:

> *What I felt is the most difficult for me in listening to the lectures is that the professors here spoke in a lower voice and a higher speed.*

Therefore, speaking at a louder volume will reduce to some degree the difficulties for listeners in listening to lectures, especially in a big class.

EFFECTS OF DIFFERENT ACCENTS ON ACADEMIC STUDIES

Listening comprehension ability is very important for success in academic studies for foreign students. The previous sections have shown that the accent will affect listening comprehension. Although in English speaking countries most people speak English, their English is spoken with many different accents. That is because the people in these countries come from all over the world as well as from different part of the country and speak different dialects, especially in the United States and Canada. It is the same in the universities in these countries. A study by John Swan (1983) found that at the Papua New Guinea University of Technology there are about 20 different accents of English in use by the lecturers. How do these different accents affect the foreign students' academic studies?

The interview with thirty subjects who are studying in the University of Alberta in Canada shows that the different accents do cause some problems or difficulties for them. Most of the subjects claimed that they found the problem especially serious at the beginning of their studies. However, no one said that because of the different accents, they failed to continue their studies. One subject stated that:

> *"I did feel that the different accents would influence my academic studies, but there is not such a problem that I could not continue my study or fail my study just because of the problems caused by the different accents".*

Why did different accents not cause serious problems for their academic studies? What helps them solve the problems which cause difficulties in their listening comprehension? The interviews offer several reasons which are discussed below.

Strong Background

Most of the Chinese subjects selected for this study are from the Faculties of Science and Engineering. Many of them had already taken graduate programs before they came to Canada (see Table 8). Some of them had completed a Master's degree in China and some are continuing their Master's degree in Canada. Among the Chinese subjects, many have already started their Ph.D. programs. They have a very strong backgrounds in their fields. They are familiar with what they are studying. Therefore, even if they have some problems in listening comprehension, they can still figure out what is going on in the class. One of the subjects said:

> *The different accents did affect my study here. But for me this problem is not so serious. Because I have already got an MA in China. I have a strong background in the area I am studying. So the content is very familiar to me.*

As a result, since the content is familiar to them, they do not have serious problems even if their listening comprehension is poor. One subject told the story of a Chinese student who could not understand even one word in class. But he borrowed notes from other students and managed to succeed in his studies. So sometimes, even they cannot understand lectures well, they can use other ways to compensate. Another subject said that in the interview:

> *The content is familiar to me, Sometimes, the professor writes something on the blackboard. As soon as I see the words, I know what he/she talks about because of my own background knowledge, which helps me to understand the lectures even though my listening comprehension is not so good.*

It should be noticed that the situation varies from field to field. For example, comprehension will be easier for someone studying in the field of mathematics, because in mathematics there are many formulas and language is less used, compared with other subjects. One subject from the Mathematics Department reported:

> *My first two professors have strong accents. So it is very difficult to understand, especially the professor from 'X'. But this did not affect my academic study very much, because mathematics has a lot of formulas. On the other hand, the professors cannot always talk and they have to write something on the blackboard. When they write on the blackboard, I immediately know what they are talking about.*

From this, it can be seen that the professors' writing on the blackboard is very important, since it gives students the chance to use their strong background knowledge.

On the other hand, if students do not have a strong background, or the field which they are studying is new to them, what will happen to them? It is very hard to draw any conclusions, but it is very obvious that they will have greater difficulties. Whether or not they succeed or fail will depend on the individual.

Taperecording

Another way in which Chinese students solve listening problems where different accents occur is by the use of taperecordings. Some subjects mentioned in the interview that they know that it is very difficult for them to understand the lectures, so they bring a taperecorder to the lectures and record them. After the class, they can listen to the lecture again and again until they understand it. The problem which remains is that they have to spend a lot of time on that. Since it is a way to solve the problems, however, some Chinese students like to use it.

Reading More Reference Books

Many Chinese subjects claim that they usually spend a lot of time reading reference books. They know that their listening comprehension is poor. Therefore, after class, they have to read more books and reference books to make up for what they missed in the class. One Chinese subject stated:

> *I make a recording in the class. After class, I can listen to it again and again until I understand it. Besides that, I also spend more time reading books and going through the notes. In this way I make up for what was missed in the class.*

Time

Most of the Chinese subjects claimed that, while at the beginning they found it very difficult listening to professors with a strong accent, after a certain period of time, the degree of difficulty was reduced. For example, one subject stated:

> *There are a few professors from 'X' in our department. They speak standard English, but with a strong accent. So they are more difficult to understand than the Canadian professors. But after a certain time, such as one month or two, it was becoming much better. Therefore, it is easier to get used to different accents.*

He continued:

> *I have another professor who has a very strong accent. At the beginning, I found it was very difficult to understand what he said. But after one term, it is not a problem. Therefore, the effect of different accents on my academic study, I believe, is not a serious problem.*

There are some other ways of coping with accents which were mentioned in the interviews. For example, some subjects said if they had something about which they were not so sure, they would go to talk to the professors about what would be discussed in the

next class and then do some preparation beforehand. All these approaches help them solve problems in listening comprehension.

SUMMARY

In this section, the results from the interview are presented and discussed. It has been found that the ability of the Canadian subjects to identify different accents is much higher than that of the Chinese subjects. When the Chinese students listen to different accents, they do have some problems. The problems are especially the unexpected pauses and unexpected word repetition. Speed, intonation, stress and sound volume might also cause some problems. These problems make it difficult for the Chinese students to understand the lectures. However, these problems are not thought to be serious problems which will affect the Chinese students' academic studies. Chinese students use other ways to make up for comprehension problems such as using their strong background knowledge, spending more time reading reference books, making taperecordings and listening to them after class, borrowing notes from other students, talking with the professors and other students and trying to get used to the accent spoken by the professor. In this way, they still can succeed in their academic studies even though they have some problems in listening to different accents.

CHAPTER FIVE

CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

CONCLUSIONS

This study examined how different accents affect listening comprehension for foreign students, and the specific problems foreign students have when listening to different accents. The study also examined whether different accents affect foreign students' success in academic studies in the universities of English speaking countries.

This section summarizes the characteristics of the Chinese subjects in terms of their previous education experience and their English as a foreign language (EFL) learning experiences. The characteristics of the three accents will also be summarized here. In addition, the results of the listening comprehension test and the dictation test as well as the results of the subjects interviews will be included.

SUMMARY OF THE CHINESE SUBJECTS' EDUCATION EXPERIENCE AND EFL LEARNING EXPERIENCE

The present study began with an examination of the characteristics associated with the Chinese subjects with respect to their educational background and to their English as a foreign language learning experiences prior to the time when they came to Canada to pursue their graduate study. As regards their educational background, the information shows that:

1. Seventy-six percent of the Chinese subjects entered universities for their undergraduate studies in the year of 1977[9] or after. Twelve percent of the subjects entered universities before the 'Cultural Revolution'[10]. Only eight percent entered universities during the 'Cultural Revolution'.

2. Among the Chinese subjects, about 50 percent[11] of the subjects took graduate studies before they came to Canada to continue their studies. Most of them had already obtained their Master's degrees in China, but there were still some who had not finished their degrees there and who came to Canada to continue their graduate studies.

3. Among the Chinese subjects who had already begun their Master's studies in China, all of them entered universities after the 'Cultural Revolution'. Most of them, 60 percent, started their Master's studies in 1982, immediately after four years of undergraduate studies.

All of the Chinese subjects' education experiences indicate that before they came to Canada to study, they had already had advanced education experiences in their academic fields which would help them in continuing their studies in Canada.

The EFL learning experience of the Chinese subjects is summarized as follows:

1. Most of the Chinese subjects began to learn English when they went to junior high schools, but some started in universities. Almost all of them claimed that actually they began to study English after they went to university. The reason for this is that when they

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9 The year of 1977 is the second year when the 'Cultural Revolution' was ended in China and students had to take examinations to enter universities for the first time since the 'Cultural Revolution' which began in 1966.

10 The 'Cultural Revolution' is a political movement in China which started in 1966 and ended in 1976. At the beginning of the 'Cultural Revolution', almost all the schools and universities were closed. Since 1972, some universities began to take in students without any examinations and all the students were assigned to universities. Since 1977, studnts had to take examinations to go to universities.

11 Among all the Chinese subjects, 15 subjects were graduate students in China, ten were undergraduate students. Five others were not identified.

started to learn English in junior high schools, this was during the 'Cultural Revolution', and at that time English was not taught. On the other hand, in the high schools, English teaching mostly focused on grammar without any emphasis on oral language.

2. In China, most of the emphasis was put on English grammar study. Very little attention was paid to listening and speaking. Most of the Chinese subjects had a special English training course just before coming to Canada, a program which put more emphasis on listening and speaking.

3. With reference to the English teachers whom the Chinese subjects had when they studied in China, the data reflects that in junior and senior high schools all their English teachers were Chinese. Most of the English teachers in universities were also Chinese. Few subjects had native English speakers as their English teachers in universities. Only when they were in the special English training classes, did they have a chance to have English instruction from native English speakers.

4. Chinese was the main instructional medium which the Chinese English teachers used to teach English to the Chinese students, although in universities, occasionally, the English teachers used some English, but it was very limited[12].

All these characteristics of the Chinese subjects' EFL learning experience illustrate that although the Chinese subjects had studied English for a long time, their English ability was still very low, especially in speaking and listening. They did not have a great deal of opportunity to be exposed to native speakers of English and to different dialects of spoken English.

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[12] Here the universities refer to the universities of science and technology or the students ' major is not English.

In sum, the educational experience and the EFL learning experience of the Chinese subjects indicates that the Chinese subjects are strong in their academic background, but weak in English ability, especially in speaking and listening. This result agrees with those obtained in other studies (Mu, 1987; Sun, 1987)

SUMMARY OF THE CHARACTERISTICS OF THE THREE ACCENTS

The examination of the characteristics of the three accents intended to answer research question 2 ("What are the different characteristics of the different accents which were used in the present study?") reveals that with reference to most of the characteristics, the Canadian accent is very close to the Scottish accent. But for the Chinese accent, the difference between it and the Canadian and Scottish accent is quite great.

1. As regards the speech delivery speed, the Chinese accent is slower than the Canadian accent and the Scottish accent in all three passages. While the Canadian accent is very similar to the Scottish accent, the Chinese subjects felt that the Scottish accent was faster than the Canadian accent. The reason is probably that the pauses between sentences in the Scottish accent are longer than those in the Canadian accent. Therefore, while the total times for the three passages are very close, the time for each sentence is different.

2. The intonation for the three accents is also different. The analysis using the mingograph machine shows that the sound level, that is, pitch, of the Chinese accent is more equal. For the Canadian accent, the sound level spread is greater and this indicates that the changes of sound level are more frequent than with the Chinese accent. The mingograph curve reflects that the Scottish accent changes its sound level most rapidly. All this shows that the intonation for the Chinese accent is mostly flat, the Canadian accent is in the middle and the Scottish accent is the most variable.

3. The analysis of word stress did not go into great detail because the work for this analysis is enough for another study. However, it is very obvious that some word stresses are different among these three accents, especially between the Chinese accent and the other two - the Canadian accent and the Scottish accent. There are several words which the Chinese reader pronounced incorrectly and then repeated in order to correct them. One of the reasons is that the speaker did not put stress on the right syllable of the word. With reference to the Canadian and the Scottish accents, the results are very close, but there are still some differences between them.

4. Concerning the sentence stress, some patterns have been found. First, the sentence stress patterns for the Canadian accent and the Scottish accent are very close. Most of the lexical words and important words in the sentences are stressed. The only difference between them is that the Scottish reader stressed most of the modifying words, which are located before the main lexical words, while the Canadian reader does not. Second, the Chinese reader also stresses most of the lexical words and some important words, but some function words are also stressed, which can be called the secondary stress. This is quite different from the other two accents. That is, perhaps, one of the reasons why the intonation of the Chinese accent is flatter than the other two accents. On the other hand, the speech speed is also obviously slower. That is why some studies mentioned in the literature review found that native speakers were difficult to understand and nonnative speakers were easier.

5. Since the Chinese language is a very different language from English, some aspects of its pronunciation are also different. For example, the Chinese language does not have some English sounds, such as /i/ and /ɪ/, /t/ and /d/. Even though both the Canadian accent and the Scottish accent derive from English, they still have slight differences in pronunciation. In the three readings involved in the present study, it has been found that the three readers have different pronunciation for some vowels, for example, in the word' were', which the

three readers pronounce differently. This indicates that the three readers have different pronunciation for some vowels as well as for some consonants. In particular, there is a difference between the Chinese readers and the other two readers. This supports the findings by Franked (1978) that one of the variables which causes EFL listeners problems is unfamiliarity with the accent or sound. Because listeners have different pronunciation than the speakers in some vowels, this will cause listeners to confuse some sounds so that misunderstanding may occur.

6. The final characteristic of the three accents which is examined in this study has to do with the placement of pauses and word repetition. With reference to the placement of pauses, it has been found that among the three readers the Chinese reader made many unexpected pause placements. This occurs twenty-two times, but for the Canadian reader, this happens only one time. The Scottish reader makes three unexpected pause placements in the three readings. As regards unexpected word repetition, the Chinese reader does this fifteen times. The main reason for doing this is probably that the reader found that she did not pronounce these words as correctly and as clearly as she would have liked, so she reread them. Neither the Canadian reader nor the Scottish reader do this. This characteristic indicates that, as might be expected, the two native English readers read the three passages with fewer problems than the Chinese reader.

Overall, the analysis of the characteristics of the three accents shows that the three readers read the three passages differently with respect to many linguistic aspects, such as pronunciation, speed, intonation, word stress, sentence stress, quality of some vowels, placement of pauses and word repetition. The difference between the speaker using the Canadian accent and the speaker using the Scottish accent is slight, but the difference between the speaker using the Chinese accent and speakers using the other two accents is greater. Because of these differences, nonnative English listeners found it difficult to understand native speakers. It should be realized, however, that not all the characteristics of

the Canadian accent and the Scottish accent, which derive from English, make difficulties for nonnative speakers in listening comprehension. On the other hand, some characteristics of nonnative speakers also make difficulties for nonnative speakers. For example, this study shows that inappropriate pronunciation, unexpected placement of pauses and word repetition, were also reported to be difficult for the Chinese subjects in this study.

SUMMARY OF LISTENING COMPREHENSION TEST FOR CHINESE SUBJECTS

The listening comprehension test is designed to answer research questions 5, 6, 7 and 8;

5. Which accent do Chinese students comprehend better?

6. Do Canadian students perform as well as the Chinese students when listening to different accents?

7. Do the Chinese students who have good English pronunciation have better comprehension of different accents?

8. Do the Chinese students who speak more than one foreign language have great ability to deal with the different accents than the students whose only foreign language is English?

The results from the listening comprehension test reveal the following:

Overall, the Chinese subjects performed best in listening to the Canadian accent. While the degree of success with the Chinese accent is between the Canadian and the Scottish, the analysis of variance shows that there is no significant difference in the performance when the Chinese subjects listen to the Canadian accent and the Chinese accent. The results also show that the Scottish accent is the most difficult for the Chinese subjects to understand, although the analysis of variance reflects that there is no significant

difference between the Scottish accent and the other two accents. A previous study by Ortmeyer and Boyle (1985) agrees with the results obtained in this study. In their study, they found that the Chinese students understood native speakers (American English and British English) better than the local speakers. In the present study, it was also found that the Canadian speaker was the easiest to understand. In most other studies (Brown, 1982; Wilcox, 1978; Ekong, 1982; Smith and Bisazza, 1982), it was found that local speakers were easier to comprehend than native speakers by nonnative listeners.

Why is there such a contradiction? The explanation might be that the EFL learning experiences of the subjects in those studies are different. In Ortmeyer and Boyle's study, all the subjects were selected from Hong Kong. This is different from other studies in which the subjects were chosen in countries where English was a second or foreign language and not widely used. In Hong Kong, the situation is quite different. It is known that Hong Kong is a British colony where English has been used for an official language for a long long time. On the other hand, Hong Kong is an 'open' place where there are a lot of people from all over the world. Therefore, students in Hong Kong can have many opportunities to be exposed to native English as well as to a variety of English accents. But in some other countries, such as Japan and India, English is not as widely used as in Hong Kong and there are also not as many native English speakers in these countries as in Hong Kong.

In the present study, most of the subjects had had some experience with native speakers of English. Although some subjects' English is still poor, the fact that they can come out of China to study in universities of English speaking countries indicates that they are both highly qualified, educationally and in their previous English learning experience, compared with the most other Chinese students. It should be also noticed that this study was carried out after they had been in Canada for several months where they had already had a lot of exposure to native English as well as to different English accents, especially

Canadian English. This might be the reason why they performed better in the Canadian accent.

Generally speaking, it may be concluded that these research results are not contradictory. The Chinese subjects' performance may depend on their previous language exposure. As Franked (1978) points out, one of the difficulties for nonnative listeners in listening comprehension is their unfamiliarity with the performance variables which characterize native speakers' speech as well as the many varieties of native-speech accents which are characteristic of English. The fact that the Scottish accent is the most difficult to understand in this study might be evidence of that. The following also supports this perception.

In examining the performance of individuals, the results from the listening comprehension are different from person to person. While some persons performed better with the Chinese accent, others did better with the Canadian accent. There were a few who performed better with the Scottish accent. The examination of the data (quantitative data and qualitative data) reveals that this variation has something to do with the subjects' previous EFL learning experience. One pattern which is shown clearly is that if listeners get more exposure to a particular accent, they will perform better with that accent.

With reference to the subjects from the different regions of China, overall, the mean scores show that the subjects from the south of China performed better than the subjects from the north, although the statistical analysis did not show a significant difference. But the results also show that the subjects from the north of China did better with the Chinese accent than did the subjects from the south although the difference is not significant. On the other hand, the subjects from the south of China got higher scores with the Canadian accent than did the subjects from northern China. Regarding the Scottish accent, an accent to which few of the Chinese students had been exposed, it was the same for both groups of

subjects. This indicates that there is a slight difference in the performance of listening to different accents among the subjects who are from the north of China and those who are from the south of China.

As regards the relation between listening comprehension performance and the number of languages which the subjects themselves can speak, the analysis of the data reveals no significant difference but that in terms of raw scores the subjects who can speak more languages (excluding Mandarin) seem to have greater ability in dealing with different accents of English and also to have greater listening comprehension ability than the subjects who can only can speak English (excluding Mandarin). The reason for this perhaps is that the subjects who can speak more languages have a wider phonological repertoire than the subjects who have only mastered one language. In addition, they may have had more experience with different tones, intonation, and stress, etc, because different languages have their own phonic system however close these languages are. This would be an area worthy of further study.

Concerning the relationship between the listeners' attitudes towards the different accents and their performance on the listening comprehension test, the data shows that there is a positive correlation between these two factors. The listening comprehension test reveals that all the subjects obtained the highest scores in the accent which they thought was the easiest to understand. This implies that the feelings and the attitudes are a reliable prediction of how well they will perform in listening to that accent. Smith and Bisazza (1982) support this. In their study, they found that subjective responses were good indicators of the more objective test results.

Generally speaking, although the difference is not statistically significant, the subjects who have good pronunciation in English perform better than the subjects who have poor pronunciation, at least, as far as the listening comprehension test is concerned.

The results of the present study show that the subjects with good English pronunciation obtained higher scores with the Chinese accent and the Canadian accent. But in the Scottish accent, the subjects with poor pronunciation performed better than the subjects with good English pronunciation. This implies that the relationship between listening comprehensibility and pronunciation is not clear, and needs further study.

To sum up, the listening comprehension tests which were conducted for the Chinese subjects indicate that the Chinese subjects have shown the best comprehension with the Canadian accent. Comprehension of the Chinese accent is in second place, but is very close to the Canadian accent. There is a significant difference in performance between the Canadian accent and the Scottish accent. The different order of presentation of the accents also made a significant difference in the listening comprehension test. Although no significant differences were found in other areas, some variables still had some impact on listening comprehension, areas such as the self-assessment of accent, the amount of exposure to English, the subjects' English pronunciation, and the listeners' previous ESL experiences.

SUMMARY OF LISTENING COMPREHENSION TEST RESULTS FOR CANADIAN SUBJECTS

With reference to the Canadian subjects, the results reveal that the Canadian subjects show much higher listening comprehension ability than the Chinese subjects in working with all three accents. The analysis of variance shows that there is a significant difference in the listening performance of all three accents between the Chinese subjects and the Canadian subjects. It has also been found that the Canadian subjects understand the Canadian accent best with the Scottish accent in the second place. They performed worst in the Chinese accent except for one group. This agrees with their attitudes towards these three accents, which is the same as the Chinese subjects.

The results also show that when regarding the Chinese subjects and the Canadian subjects each as one group there is a significant difference between listening to the Canadian accent and the Scottish accent. If considering the performance on the listening comprehension test in a global way, the statistical analysis also shows that the Canadian subjects did significantly better than the Chinese subjects did.

The results imply that language environment is a very important factor in improving listeners' listening comprehension ability to deal with a variety of accents. The Canadian subjects have a good language environment so it may account for their performance. The more chances the listeners can get to be exposed to different accents, the higher ability they will display in listening to different accents. The results here strongly confirm some points which are derived from the literature review, namely that more language exposure and familiarity with the accent are important factors in listening comprehension. The Canadian subjects, undoubtedly, have a lot more experience than the Chinese subjects do. Of course, there are some other reasons, such as English is the first language of the Canadian subjects, and the content of the listening materials may be more familiar to the Canadian subjects than to the Chinese subjects.

SUMMARY OF THE DICTATION TEST

An examination of the dictation test for the Chinese subjects reveals that most errors which the Chinese subjects made are type D, which refers to failure to hear a word. There are also many errors of type B, which refers to mishearing of one word for another in a way that does not make sense in the context of the sentence and type C errors, which refers to failure to hear parts of words. This indicates that the Chinese subjects missed a lot of words, 655 words out of 4710, and also that some function words are very difficult to catch. Error type B indicates that the Chinese subjects cannot find appropriate words to take the place of those which they missed. This implies that in the dictation, the Chinese

subjects did not understand the meaning of the whole sentence, which may be why they could not find suitable words to replace those missing words.

It has also been found that the results from the dictation are very similar to those from the listening comprehension test. The difference is that this time, performance with the Chinese accent is slightly better than with the Canadian accent. This implies that listening to a single sentence is a little bit different from listening to an entire passage, because the Chinese accent is at a slower speed than the Canadian accent. Kelch (1985) gives support for the possibility that a slow rate of speech has a positive influence on comprehensibility. He found that second language (L2) students had significantly greater success in dictation when the rate of speech of the passages was slowed down from about 200 wpm to 130 wpm.

With reference to the Canadian subjects, it was found that the Canadian subjects made far fewer errors than the Chinese subjects in any type of errors. The analysis reveals that the Canadian subjects can grasp the meaning of the sentences when listening. Therefore, they missed very few words. Those which they missed were mostly function words. In addition, even for words which they did not catch, they were still capable of finding appropriate words to substitute for them.

The scores from the dictation show that the Canadian subjects performed best with the Canadian accent with the Chinese accent in the middle and the Scottish in the last place, which is very similar to the results from the listening comprehension test.

To summarize, ability in dictation for the Canadian subjects is much higher than for the Chinese subjects. The Canadian subjects listen on the basis of sentences and grasp the meaning of the sentence as a whole. On the other hand, some Chinese subjects listen on the basis of words and then try to arrive at the meaning of the whole sentence. Therefore it is very difficult for them to catch the meaning of the entire sentence. The same results may

also be true of the listening comprehension tests. This, again, indicates that the Canadian subjects have better ability to deal with different accents, even with the Chinese accent. It implies that as long as listeners are exposed to a variety of accents, their ability to understand different accents will tend to be higher.

SUMMARY OF THE INTERVIEW

Three findings come from the interviews, which intend to answer research question 4 (What is the influence of problems in listening to different accents on their academic studies?).

With reference to the ability in identifying the three accents, it was found that the Canadian subjects have much higher ability in identifying the three accents than the Chinese subjects. The following table shows the percentage of correct identification of the three accents by the Chinese and Canadian subjects.

Table 21

Percentage of Correct Identification of Three Accents by Chinese Subjects and Canadian Subjects

Subject \ Accent	CHINESE	CANADIAN	SCOTTISH
Chinese Subjects	32.1%	43%	25%
Canadian Subjects	71%	86%	71%

The main reason for this is because the Canadian subjects have a completely different language environment, compared with the Chinese subjects. The Canadian subjects have many more opportunities to be exposed to different English accents than the Chinese subjects do.

As regards the problems in listening comprehension involving a variety of accents, it was found that the Chinese subjects have some problems in listening to a variety of accents because of the pronunciation, the speech delivery speed, the placement of pauses, word repetition, intonation, stress, retention and sound levels. If listeners are familiar with the features of the accent listed above, it is easier for them to understand that accent, otherwise they will find it more difficult to comprehend. It was also found that the problems for each subject are different, i.e., the problem which one subject has may not be a problem for other subjects. It really depends on the individuals.

Lastly, the interview suggests that the different accents do influence the Chinese students' academic studies in the universities of English-speaking countries. However, it was found that the problems caused by the different accents are not so serious that the Chinese students could not continue to study. This is because the Chinese students can use many other ways to compensate for what is lost in listening to the lectures. For example, they can use their strong background knowledge in their academic fields; they can spend more time to review the notes which are taken by themselves or borrowed from their classmates, they can spend more time in reading reference books, and they can discuss questions with their classmates and their professors. All of these can help them to solve the problems caused by having to listen to different accents in lectures.

IMPLICATIONS

IMPLICATIONS FOR EFL TEACHING IN CHINA

This study examines the effects of different English accents on the listening comprehension and on the academic studies of Chinese students in universities in English speaking countries. The results reveal that the Chinese students do have some difficulties when they listen to different accents or attend lectures given by professors who speak with different English accents, although the Chinese students report that such difficulties are not

so serious as to influence their success in their academic studies. On the other hand, it has not been found that the Canadian students have such difficulties.

To some extent, the difficulties which the Chinese students have resulted from the way in which English is taught and learned in China. The information about the subjects' EFL learning experiences reveals that grammar is the main focus in English instruction in China. Among the four language skills, reading is more emphasized in the English curriculum in China than are listening and speaking, which are not given much attention. In addition, students do not have enough exposure to native English speakers. Even in English classes, the language which is used by many English teachers is not English, but Chinese. Therefore, students do not have much comprehensible English input (Krashen 1982) during English instruction and they do not have chances to use English in communication situations. Although some students may have a somewhat better English learning environment than this, it is still very limited.

Some studies have found that listening skills are very important for students who study abroad. In his 1986 study, Powers states that Faculty staff (professors and instructors) perceived listening skills as more important than others for academic success. Specifically, Powers found that reading and listening are more important than writing and speaking. This is generally consistent with the findings of other surveys (e.g. John, 1981).

Since Chinese students do have problems or difficulties in listening comprehension, especially in listening to different accents, during their academic studies in universities in English speaking counties, and since listening skills are very important to their studies, the following implications are presented for EFL teaching in China, especially for the students who will go abroad to study.

1. Curriculum developers should be aware that the speaking and listening skills are as important as the reading skills. Therefore, English teaching should not only focus on

grammar and reading, but there should also be an emphasis on listening and speaking. This is especially important for students who are preparing to go abroad to study, to do business, or to carry out other activities with English-speaking countries.

2. If the emphasis is on listening and speaking, English should be used more both in the EFL class and out of it. This is very important. The study by Smith and Bisazza (1982, p. 209) concluded that spoken English was more comprehensible to those people who have had an active exposure to it. English teachers should be encouraged to use English in class and out of class as much as possible. In this way, the students can get more opportunities to hear and use English. However, this is still very difficult in China, because China does not have an English language environment and many English teachers do not reach a level which allows them to be able to speak English fluently.

What should be done? First, the quality of English teachers has to be improved. China should offer programs to train as many English teachers as possible, since a small number of qualified English teachers is not enough to change the present situation. There is needed a large number of teachers who are willing and able to change the English learning situation in China.

Second, many different kinds of materials should be used to offer opportunities for Chinese students to listen and to speak. For example, there is a lot of modern equipment which could be used to give help: radios, taperecorders, video machines, films and other audio-video equipment. Sun in his study (1987, p.38), also suggested that there should be ample opportunities for developing oral-aural skills through participating in various authentic or 'authentic-like' activities such as listening to recordings and the radios, watching TV and video programs from the target language countries and discussing daily-life activities with native or 'native-like' speakers if possible.

Third, many different kinds of activities should also be developed, which can supply students with the chance both to listen to English and to speak it, such as English competitions, English corners[13], English clubs[14], and many other English games, some of which have already been held in China. Unfortunately, these activities are still not common enough to allow many people to benefit from them. Therefore, more work should be done to help such English activities become popular so that more Chinese students can benefit from them.

3. Not only should the focus be put on listening and speaking but students should be given more chances to hear native speakers of English and different English accents, as well. This study and some other studies have shown that in English speaking countries, the language is spoken in a variety of accents. Swan (1983) points out that:

> [The students' listening] *difficulties lie simply in the nature of the spoken medium. There will always be differences of accent and this is not anyone's fault. There is little point in saying to anyone simply" you must speak more clearly to your students" or "you must listen more carefully to your lecturers.* (p. 79)

What can be done is to provide students with extra experience with different English accents by their talking to a variety of native speakers, watching English language TV programs, and listening to English radio programs and taperecordings. It should also be possible to devise ear-training exercises for use in the language laboratory which can help students adjust to the different accents.

4. This study also reveals that a strong background in the students' major is a very important factor in determining their success in their academic studies in English speaking

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[13] English corner is an English meeting which has taken place in some big cities in China. In the meeting, people who are interested in learning English gather together to talk with each other in English. Sometimes foreigners, English teachers, professors and English studetns are invited to join such acitivities. In this way, they learn English.

[14] English club is an organization of students which takes the responsibility of organizing many different English activities, such as English speech, singing English songs, discussing some issues in English, seeing English movies and watching English TV programs.

countries. Therefore, it is recommended that students who want to study in English-speaking countries should stay in their own academic field. If possible. They should not change their major.

IMPLICATIONS FOR UNIVERSITIES IN ENGLISH SPEAKING COUNTRIES

We have already suggested that one thing which can be done to solve the problem of listening comprehension with different accents is to change the method of English teaching in China. On the other hand, what can be done in universities in English speaking countries which might reduce the problems which foreign students have in listening to different accents? There are several things which could be done to help these students.

1. First, professors and lecturers in universities of English speaking countries should realize that foreign students are different from native English students. Because of the language problem, foreign students do have difficulties in understanding lectures, especially when professors and lecturers speak with an accent which is not familiar to the students. Therefore, they should be treated somewhat differently than native English students. In the literature review, it was shown that in some ESL classrooms and in some conversation between ESL learners and native English speakers, native English speakers use foreigner talk. Should foreigner talk also be used in the academic lectures? Since foreign students do have difficulty in listening to lectures, especially at the beginning of their studies, university professors and instructors should realize that and try their best ways to help foreign students to solve or reduce these problems.

2. Universities in English speaking countries, especially the individual departments of these universities, should help foreign students select professors and lecturers whose accent is easier to understand if possible. If foreign students can choose professors and lecturers whose accent is familiar to them at first, it makes it a lot easier for them to succeed in their academic studies, because, as the present study shows, Chinese students found

some accents easier to understand and some more difficult. Most of the previous studies have also come to this conclusion. On the other hand, departments can help foreign students to become familiar with professors and lecturers before classes. Gass and Varonis (1984) suggest that factors such as familiarity with a particular speaker, with a speaker's language background, and with other nonnative speakers also increase the comprehensibility of the discourse and students' chances for success.

3. If it is not always possible to select professors and lecturers with suitable accents, there is another way to help foreign students. If some professors' and lecturers' accents are very unusual, their voices could be recorded on tapes. Foreign students could borrow these tapes from Departments to listen to before the formal lectures begin. In this way, foreign students could become familiar with the accent of these professors and lecturers in order to reduce their listening problems in the formal lectures.

4. The present study reveals that if foreign students can do some preparation before the lectures, it will make it easier for them to understand these lectures. Therefore, professors and lecturers should tell foreign students clearly what will be discussed in the next lecture and what should be read in advance so that the students have some preliminary framework in their mind before coming to the lectures This should help foreign students' comprehension of the lecture, especially if a unfamiliar accent is involved.

5. Another way in which universities in English-speaking countries might help to minimize foreign students' difficulty in listening to different accents is to organize different kinds of social activities so that foreign students can have chances to talk to different people from different countries. In this way, they can get more exposure to a variety of accents to improve their ability to deal them.

IMPLICATIONS FOR THE TOEFL TEST

The TOEFL test is one of the most important tests for foreign students, since it is the standard measurement for deciding whether foreign students have sufficient English to succeed in their academic studies in universities in English-speaking countries. The present TOEFL test is mainly designed to measure foreign students' reading ability, listening ability and writing ability. The TOEFL test only uses American standard English to test foreign students' listening comprehension ability. But the present study has shown that this is not enough, because in reality, the English which foreign students will listen to most of the time is not always such a dialect. Therefore, the TOEFL test does not consider foreign students' ability to comprehend a variety of accents. Some Chinese subjects claimed that, although they had passed the TOEFL test, they still found that listening comprehension was a problem, especially when listening to different accents. Therefore, one implication of this study for the TOEFL test is that the listening comprehension part of the TEOFL test should adopt a range of English accents for listening materials instead of using only standard American English. In this way, foreign students will be required to be exposed to more English accents and improve their ability to deal with them. As a result, they might find it easier to study English language universities.

RECOMMENDATIONS FOR FURTHER RESEARCH

Since accent is an important factor which influences foreign students' listening comprehension of lectures in universities of English-speaking countries, it is necessary to do more research on it, since until now, very little research has been done in this area. The present study has surveyed the situation of thirty Chinese students' listening comprehension with respect to three different accents, and the relation between their listening ability and their academic studies. But this study is still very limited. In view of this fact, some possible further research is recommended.

1. The sample of this study included only 30 Chinese students. This number is not large enough to represent the whole population of foreign students in all universities in English-speaking countries. Therefore, some research should be done with a larger sample.

2. The sample of this study was taken mostly from the Faculties of Science and Engineering. Their language requirements are different from those of the departments of humanities and other departments which need a greater command of the language, such as the English Department or the Faculty of Education. Therefore it is necessary to do more research into how different accents affect the academic studies of foreign students in these departments, what problems or difficulties these students have, and whether there is any difference between the two kinds of students.

3. This study has examined the Chinese students' listening ability with respect to different accents and has observed the effect of different accents on their academic studies on the basis of lectures or in the classroom situation. What will be the case with seminars, another kind of academic study situation? Since this study did not consider this situation, more research will need to be done in this situation to see what effect will be caused by different accents for foreign students in the context of seminars or small group discussions, in which the accents of fellow students must also be considered.

4. This study has been done from the viewpoint of the listening comprehension test, a dictation and the interview with the subjects. But observations of real lectures or classrooms are also needed to see how foreign students perform in these.

5. This study, through the results on the dictation task, shows that the Chinese students understand the Canadian accent better than the Chinese accent. In addition, their attitudes towards the three accents produce the same results as the listening test. But this is based on listening to three readings. Further research is necessary to see whether there is a difference when the readings are changed into conversations, since it has been pointed out

that conversation is different from reading. In the conversations, listeners may understand their own countryman better than native speakers because the way of thinking and structuring sentences are the same. More research is required on this topic.

6. This study implies that listening to one sentence may be different from listening to one passage with different accents. Therefore, it is necessary to do further research to see whether there is any difference and what causes this difference.

7. Almost all of the Chinese subjects involved in this study had some previous experience with native English. Therefore, it is also necessary to examine whether there is any difference for the Chinese students who are still in China and who have never had experience with native speakers of English.

SUMMARY

The results of this study show variables which have an effect on listening comprehension and some problems that foreign students might have when they study in English language universities. However, there are many other aspects of this problem which require investigation. It is hoped that further research will provide additional insights.

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APPENDIX A

QUESTIONNAIRE

Dear Chinese friends:

This is a questionnaire which seeks to gather information about your academic background, English as a foreign language (EFL) learning experiences, and some of your personal information before you came to Canada. In addition, some questions are intended to seek information about your academic study and English learning since you came to Canada. The purpose of gathering this information is to help to interpret and understand the results from listening comprehension test which will be carried out separately. The questions are intended to request that you respond on the basis of how you yourself feel, not how you think others might feel about them. All the data will be presented without mentioning your name and after this study is done, they will be destroyed, so I promise that your answers will be kept completely confidential.

I am aware that time is very valuable to you. So I very much appreciate that you can spend some of your valuable time and provide me with some information for my research. Without this information, it is impossible for me to finish my research. The result of this study will be valuable and helpful to the Chinese students who are studying English in China and getting ready to come abroad to study.

If you have some questions, please phone me. The telephone number is 433-5090 (office) and 436-9030 (home). Thank you very much again.

After you finish the questionnaire, please put it in the attached envelop and send it to the address on the envelope.

Looking forward to hearing from you.

With my best wished to you.

Yours sincerely

LI WEI

QUESTIONNAIRE

1. Name _____ (in pinyin) _____ (in Chinese characters).
2. Age _____ Sex _____ Place of birth _____
3. Department (in The University of Alberta) _____ .
4. Chinese dialects you can speak (1) _____ (2) _____
   (3) _____ (4) _____.
5. Chinese dialects your family can speak (1) _____
   (2) _____ (3) _____.
6. How many language can you speak?
   Japanese ____ Korean ____ Russian ____ French ___ Spanish ____ German ____
   Others (Please specify) _____ .
7. How many language do you know?
   Japanese___ Korean ____ Russian ____ French ____ Spanish ____ German _____
   Other (Please specify) _____
8. You were admitted to be an undergraduate student in the University (in China) of _____ in the year of _____ , and you were admitted to be a M.A. students in the University (in China) of _____ in the year of _____, and to be a Ph.D student in the University of _____ in the year of _____ .
9. Your major of the first degree (in China) is _____ , and your major of the second degree (M.A.) is _____ , and your major of Ph.D program is _____ .
10. Your major now (in Canada) is _____.

11. What is the program you are in here?

M.A. ____ Ph. D _____ Visiting Scholar _____

12. Does the subject you studied in China help you to study in Canada, especially in listening comprehension and understanding of classes and lectures?

Yes _____. No _____ .

If yes, please give a brief description that in what ways it helps.

_____

_____

_____

_____

_____

13. Do you find that your working experience in China help you to study in Canada, especially in listening comprehension or understanding of lectures or classes here?

Yes _____ No _____

If yes, please give a brief description.

_____

_____

_____

_____

_____

14. When and where did you begin to learn English?

School	Place	Year
Elementary school		
Junior high school		
Senior high school		
University		
Other Institutions		

15. How many hours each week did you spend on the EFL courses in China (Please circle the number in the following).

School	Hours spent each week
Elementary school	1 2 3 4 5 6 7 8 9 10
Junior high school	1 2 3 4 5 6 7 8 9 10
Senior high school	1 2 3 4 5 6 7 8 9 10
University	1 2 3 4 5 6 7 8 9 10
Other Institution	1 2 3 4 5 6 7 8 9 10

16. How many hours did you spend each weak on learning English by yourself in China (Please circle the following number)?

School	Hours spent each week
Elementary school	1 2 3 4 5 6 7 8 9 10
Junior high school	1 2 3 4 5 6 7 8 9 10
Senior high school	1 2 3 4 5 6 7 8 9 10
University	1 2 3 4 5 6 7 8 9 10
Others	1 2 3 4 5 6 7 8 9 10

17. What kind of English teachers did you have when you studied English in China, the Chinese teachers or foreign teachers? If they were foreign teachers, what countries did they come from?

School	Teachers	Countries
Elementary school		
Junior high school		
Senior high school		
University		
Other Institutions		

18. After you came to Canada, did you take any English course?

Yes _____. No _____.

If yes, please answer the following questions.

a) Where and when did you take the English course?

b) How long was the English course?

c) What is the nature and purpose of this course?

d) Please describe briefly the characteristics of your English teacher, e.g. which country did the teacher come from originally and what accent the teacher spoke or more you know.

19. Please state the focus of EFL courses you took at the different stages, for example, grammar, reading, writing, listening or speaking.

School	Description
Elementary school	
Junior high school	
Senior high school	
University	
Others	
English class in Canada	

20. Please list the language learning activities normally conducted in EFL classes at the different stages in your English learning in China, e.g. lecture, conversation, group discussion, playing games, watching English TV programs, or others (Please specify).

Schools	Activities
Elementary school	
Junior high school	
Senior high school	
University	
Others	
English class in Canada	

21. What language skills were mostly emphasized and drilled in the EFL classes in China such as reading, listening, speaking and writing?

Schools	Language skills emphasized
Elementary school	
Junior high school	
Senior high school	
University	
Other Institutions	
English class in Canada	

22. Did you watch English programs on TV in China?

Yes _____ No _____

If yes, How many hours did you spend on watching English programs on TV each week?

1__ 2__ 3__ 4__ 5__ 6__ 7__ 8__ 9__ 10__

23. If you watched English programs on TV in China, what programs did you watch most of the time?

English program made in China _____

English program made in the United States _____.

English program made in Britain _____.

English program made in other countries _____.

24. Did you listen to English radio programs when you were in China?

Yes _____ No _____

If yes, how many hours did you spend to listen to English radio programs?

1__ 2__ 3__ 4__ 5__ 6__ 7__ 8__ 9__ 10__

25. If you listened to the English radio programs, what programs did you listen to?

VOA (voice of America) _____ BBC (British) _____

Radio Peking _____ Others (Please specify) _____.

26. What kind of people do you live with now in Canada?

Chinese students _____ Your family _____

Canadian students or people _____

Hong Kong students _____ Others _____

If you live with people who are not mentioned above, please state

which country they come from.

_____

27. How many hours do you spend speaking English every day now?

1__ 2__ 3__ 4__ 5__ 6__ 7__ 8__ 9__ 10__

28. If you often speak English, what kind of people do you mostly talk with? Please give a short description.

_____

_____

_____

29. How many foreign friends do you have here?

1__ 2__ 3__ 4__ 5__ 6__ 7__ 8__ 9__ 10__

Please give a very brief description about your foreign friends, e.g. the nationality, the accent they speak and which you think is important to you.

_____

_____

_____

_____

_____

_____

30. How many hours do you spend watching English programs on TV and seeing English movies every day here?

1__ 2__ 3__ 4__ 5__ 6__ 7__ 8__ 9__ 10__

31. How many hours do you spend listening to English programs on radio here ?

1__ 2__ 3__ 4__ 5__ 6__ 7__ 8__ 9__ 10__

32. Do you find difficulties understanding different English accents spoken by different professors when you attend classes?

Yes _____ No _____

If yes, please describe briefly what difficulties you have and what do you think causes you difficulties?

_____

_____

_____

_____

33. If you found it difficult to understand different English accents, what accent do you find most difficult and what accent is easiest?

_____

_____

34. Please tell what English learning experience in China was most beneficial for your current study here, e.g. attending lectures, attending oral classes, watching English TV programs, listening to English programs on radios, or others.

_____

_____

_____

35. How many courses did you take in the first term?

The first term	Title of course	Scores you got
1		
2		
3		
4		

36. What kind of English tests did you take before you came to Canada or after you came to Canada?

The Name of Test	Score
TOEFL (Test of English as a Foreign Language)	Listening___ Reading___ Structure___
MTELP (Michigan Test of E. L. Proficiency)	Listening___ Reading___ Structure___
EPT (English Proficiency Test)	Listening___ Reading___Structure___
Others(Please specify) _____	Listening___ Reading ___ Structure___

37. What language, English or Chinese, did your teachers use to instruct EFL classes when you studied English in China?

Schools	Language used
Elementary school	
Junior high school	
Senior high school	
University	
Other institutions	

APPENDIX B

QUESDTIONNAIRE FOR CANADIAN SUBJECTS

QUESTIONNAIRE

Please fill in the following form and answer the the questions truthfully.

1. Name _____ Place of Birth _____

2.What kind of the languages can you speak?

English ___ French ___ Spanish ___ German ___ Mandarin ___ Japanese ___

Russian ___ Others (please specify) _____

3. Did you travel to other countries before? If yes, please describe.

_____

_____

_____

4. After having listened to the three talks with different accents, would you please tell what accent they are.

The first _____ The second _____ The third _____

5. What accent do you think is the most difficult for you to comprehend?

The first _____ The second _____ The third _____

Would you please to explain some reason, you think, why this accent is the most difficult for you?

_____

_____

_____

6. What accent do you feel the easiest for you to understand?

The first _____ The second _____ The third _____

Would you please to explain some reasons why it is in this way?

_____

_____

_____

7 Did you find the content of these three passages were too difficult to understand?

Yes _____ No _____

If yes, please specify in what way it is difficult for you?

_____

_____

8. Did you find that the language of these three passages is difficult?

Yes _____ No _____

If yes, please specify in what way it is difficult for you.

9. Did you feel that there are some questions which are completely answered by your background knowledge?

Yes _____ No _____

If yes, how many do you think out of all? (please specify).

_____

10.Would leave your phone number? If I have some questions, I can get in touch with you. Thank you.

_____

APPENDIX C

LISTENING COMPREHENSION TEST

Listening Comprehension A

You will hear three short readings with each having a different accent. After each talk, there will be three groups of questions for you to answer, one group of questions for each talk, altoghether there are 30 questions. You will hear the questions from the tape and then choose one suitable answer for each question from the five choices on the answer sheet. There is one minute for each question.

1. What is the main topic of this talk?
   A. Something about Soviet Union.
   B. Something about China.
   C. Something about the family.
   D. Something about the society.
   E. Something about divorces.
2. According to the passage on the tape, what has undergone profound changes in the last 150 years?
   A. The world.
   B. The society.
   C. The structure of the family.
   D. Divorces
   E. None of the above.
3. What did China try to do after 1949?
   A. Replace its traditions.
   B. Develop its society.
   C. Keep its tradition.
   D. Develop relations with the Soviet Union.
   E. Both A and B.
4. What was the Chinese tradition mentioned in the talk?
   A. Reverence for women.
   B. Reverence for man.
   C. Reverence for older generations.
   D. Reverence for the country.
   E. Reverence for the society.

5. What has become more important in educating children?
   A. Parents.

B. Society.

C. Schools.

D. Government sponsored organizations.

E. Both C and D.

6. What structure did the family once served as?

A. A production unit.

B. A part of a production unit..

C. A farm.

D. A factory.

E. A business.

7. How many children do families normally have today?

A. Four or five.

B. More than four or five.

C. Zero.

D. Less than four or five.

E. None of above.

8. What are the changes in the family?

A. The shifting role of women.

B. The shifting role of man.

C. The growing rate of divorce.

D. The increasing rate of divorce.

E. Both of A and C.

9. Why have these changes occurred?

A. Needs for people with geographic mobility.

B. Not enough jobs.

C. Broken ties of extended families.

D. The problem of society.

E. None of above.

10. Whom do people tend to keep in touch with more?

A. Friends.

B. Families.

C. Relatives.

D. Colleagues.

E. Both A and B.

Listening Comprehension B

1. What has been affected by the growth of industries and cities?
   A. Family structure.
   B. Family size.
   C. Family values.
   D. Family norms.
   D. All of above.
2. What was once the middle-class norm?
   A.Wage-earning father.
   B. Wage-earning mother.
   C. Home-making father.
   D. Home-making mother.
   E. Both A and D
3. What kind of women have careers outside their homes?
   A. Low-class women.
   B. Low and middle-class women.
   C. Middle-class women.
   D. High-class women.
   E. Both C and D.
4. When was the proportion of working married women greatly increased?
   A. During World War 1.
   B. During World War 2.
   C. Between the World War1 and 2.
   D. After World War 2.
   E. After World War 1.
5. Why was the proportion of working married women greatly increased?
   A. Be treated equally as men.
   B. Be liberated.
   C. Do better jobs.
   D. Not enough men.
   E. None of above.

6. What did women think about there being more need for them to work?
   A. Chance to serve their country.
   B. Chance to earn more money.
   C. Chance to get out of house.
   D. Chance to enjoy themselves.
   E. Both A and B.
7. After the war, what happened to women?
   A. Lost their jobs.
   B. Remained to work.
   C. Had to stay at home.
   D. Tired of working.
   Looked for new jobs.
8. Who paid most of cost for many veterans to go to college?
   A. Themselves.
   B. Government.
   C. Colleges.
   D. The companies they worked for.
   E. All of the above.
9. What made housekeeping easier?
   A. Advanced technology.
   B. Labor-saving devices.
   C. Increase in service industries.
   D. More money.
   E. Both A and B.
10. When did colleges also become a possibility for increasing numbers of middle-class women?
   A. After the World War 1.
   B. After getting permanent jobs.
   C. Achieving higher living standards.
   D. Achieving more family income.
   E. Both C and D.

Listening Comprehension C

1. What is the main topic of this talk?
   A. Marriage.
   B. Jobs.
   C. Families.
   D. Divorces.
   E. Society.
2. What are the recent census figures of divorce?
   A. One for every two marriages.
   B. One for every three marriages.
   C. One for every four marriages.
   D. One for every five marriages.
   E. None of above.
3. Why are such figures misleading?
   A. Incorrect.
   B. Changed.
   C. Wrong calculation.
   D. Based on wrong data.
   E. Some persons divorced for several times.
4. What is the explanation for this increasing rate of divorces?
   A. Attitude change of churches.
   B. Financial independence of women.
   C. Women needed more freedom.
   D. Women wanted liberated.
   E. Both A and B.
5. What did women do when they had to deal with poverty?
   A. Asking former husbands for help.
   B. Finding jobs.
   C. Turning to the state for help.
   D. Suffering from poverty.
   E. None of above.

6. What is the result of the increasing number of divorces?
   A. Increasing crime.
   B. Increasing the rate of suicide.
   C. Increasing number of single-parent family.
   D. Increasing number of children without parents.
   E. None of above.
7. In which year was the study of attitudes toward the rate of divorces published?
   A. 1973.
   B. 1974
   C. 1975
   D. 1976.
   E. 1977.
8. How many adults were involved in this study?
   A. 2416.
   B. 2146.
   C. 2164.
   D. 4612.
   E. 2614.
9. This study found that divorced women were:
   A. Happy with their divorce.
   B. Facing severe problems.
   C. Unsatisfied with their life situation.
   D. Sometimes satisfied, sometimes not.
   D. Both B and C.
10. How much did divorced women earn?
   A. As much as single women.
   B. Higher than single women.
   C. Almost the same as single women.
   D. Less than single women.
   E. None of above.

APPENDIX D

DICTATION TEST

DICTATION

GROUP A.

1. Families still fulfil these basic needs as they always have. (10)
2. The goals of the Soviet and Chinese have not been fully achieved. (12)
3. Parents have lost much of their former influence on their children. (11)
4. Families of four or five or more children are less common today. (12)
5. They must be able to change locations to get their jobs. (11)

GROUP B

1. More and more middle-class women have careers outside their homes. (11)
2. The country needs labour for heavy war production. (8)
3. Immense numbers of men were taken from the labour force. (10)
4. The government paid most of the cost of education for veterans. (11)
5. Many wives again found reasons to work outside their home. (10)

GROUP C

1. Roughly, there is one divorce for every three marriages. (9)
2. Sociologists have offered several explanations for high rate of divorce. (10)
3. In addition, many working women are financially independent. (8)
4. They must turn to the state to assist them through periods of poverty. (13)
5. Divorced women's earnings are less than single women of their age. (11)

APPENDIX E

INTERVIEW

INTERVIEW QUESTIONS

1. From these accent, can you tell where these 3 people come from?

2. Which accent seems the most difficult for you to understand? Would you please tell why you think that is the most difficult?

3. What percent of the answers on all three passages do you think you answered on the basis on guessing and predicting?

4. What is the greatest problems you have in your academic studies since you came to Canada? Would you please talk a little bit more about that?

5. Did you find that the professors who taught you spoke different accents? Did that make your study more difficult?

6. When you studied English in China, what kind of English teachers did you have? Were they Chinese teachers or foreign teachers? If they were foreign teachers, what countries did they come from?

7. Please read these three passages to see how difficult the content and language of these passages are for you